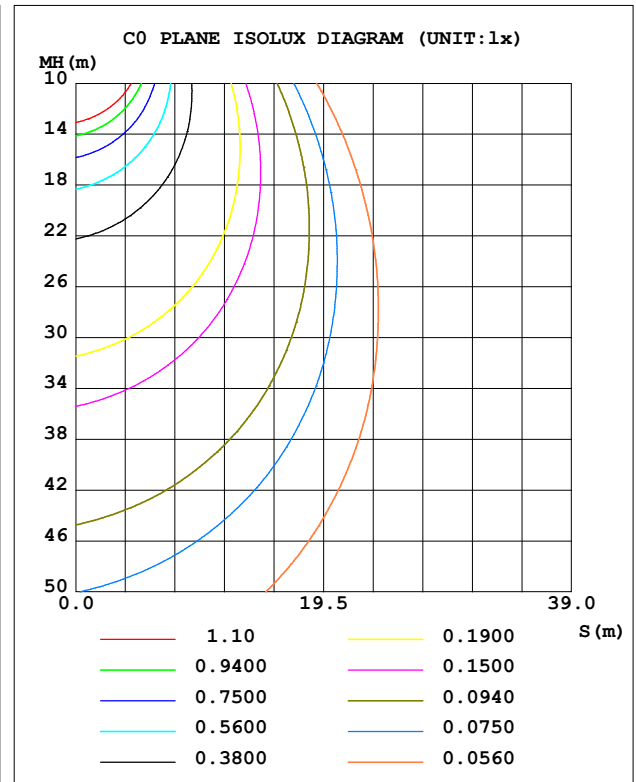
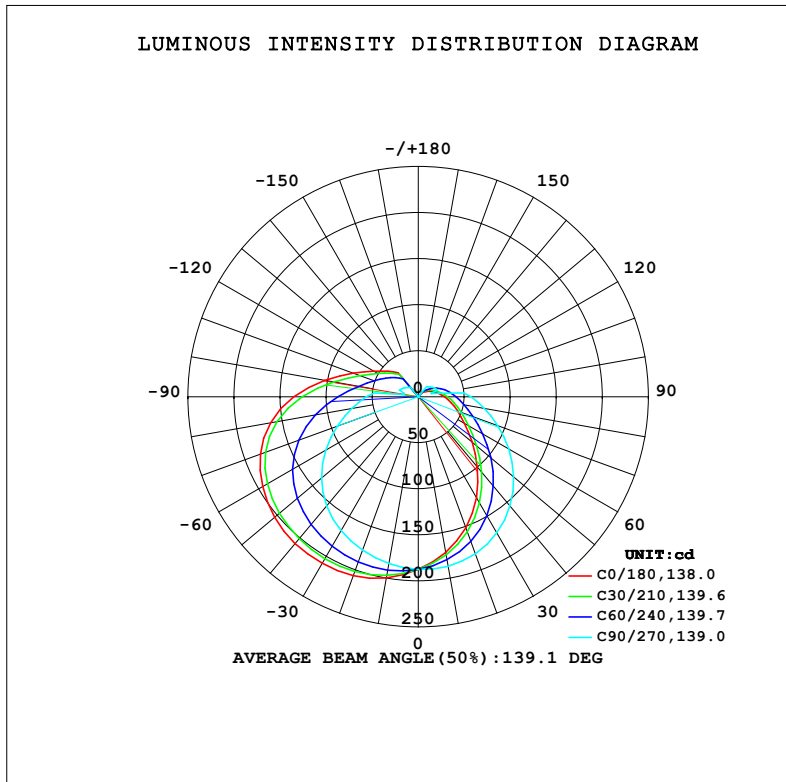


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	93M20TLB1040/BL	Imax (cd)	208.7	S/MH (C0/180)	1.68
NOMINAL POWER (W)	10	LOR (%)	121.0	S/MH (C90/270)	1.34
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	967.96	$\eta$ UP, DN (C0-180)	11.7, 47.6
NOMINAL FLUX (lm)	800	CIE CLASS	SEMI-D.	$\eta$ UP, DN (C180-360)	12.1, 49.6
LAMPS INSIDE	1	$\eta$ up (%)	23.8	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	48	$\eta$ down (%)	97.2	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 15 November 2022

$\gamma$  Range: 0 - 140DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	171.7	176.6	186.9	196.7	199.8	194.3	183.9	174.7	0- 10	17.81	17.81	1.84,2.23
20	151.4	161.5	181.5	200.9	206.6	197.0	177.3	158.5	10- 20	51.73	69.54	7.18,8.69
30	126.5	140.5	170.7	199.3	208.7	196.1	167.7	138.1	20- 30	80.50	150.0	15.5,18.8
40	99.91	116.0	155.0	192.3	208.1	192.2	154.7	114.6	30- 40	101.3	251.3	26,31.4
50	76.16	91.31	135.3	181.2	203.5	185.8	137.1	90.69	40- 50	112.9	364.3	37.6,45.5
60	58.07	70.27	113.5	166.9	195.1	175.8	116.1	70.28	50- 60	115.8	480.0	49.6,60
70	45.55	54.94	91.93	148.5	182.4	159.7	93.80	54.87	60- 70	111.3	591.4	61.1,73.9
80	36.28	44.06	72.95	125.6	162.6	136.1	73.00	43.70	70- 80	100.8	692.2	71.5,86.5
90	28.71	35.69	57.60	101.0	135.3	107.1	56.75	35.16	80- 90	85.29	777.5	80.3,97.2
100	22.26	28.75	23.38	77.92	103.5	79.40	15.30	28.13	90-100	66.81	844.3	87.2,106
110	16.66	22.82	21.89	60.02	75.20	59.11	22.17	21.93	100-110	47.99	892.2	92.2,112
120	11.95	17.26	19.81	47.35	55.87	46.03	18.98	16.65	110-120	33.89	926.1	95.7,116
130	8.114	12.08	16.97	37.95	43.37	36.84	15.97	11.61	120-130	23.38	949.5	98.1,119
140	5.196	7.736	14.54	30.20	34.23	29.48	13.65	7.493	130-140	15.53	965.0	99.7,121
150	0	0	0	0	0	0	0	0	140-150	2.917	968.0	100,121
160	0	0	0	0	0	0	0	0	150-160	0	968.0	100,121
170	0	0	0	0	0	0	0	0	160-170	0	968.0	100,121
180	0	0	0	0	0	0	0	0	170-180	0	968.0	100,121
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 306.94 lm

%lum = 31.7%

%lamp = 38.4%

Conical surface Flux(130deg): 536.67 lm

%lum = 55.4%

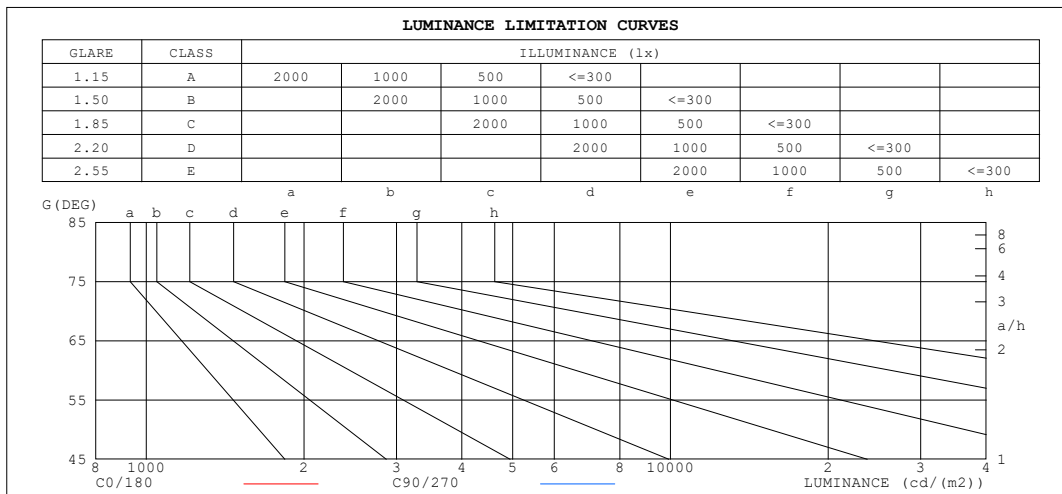
%lamp = 67.1%

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

$\gamma$  Range: 0 - 140DEG  
 $\gamma$  Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

LUMINANCE LIMITATION CURVES

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:



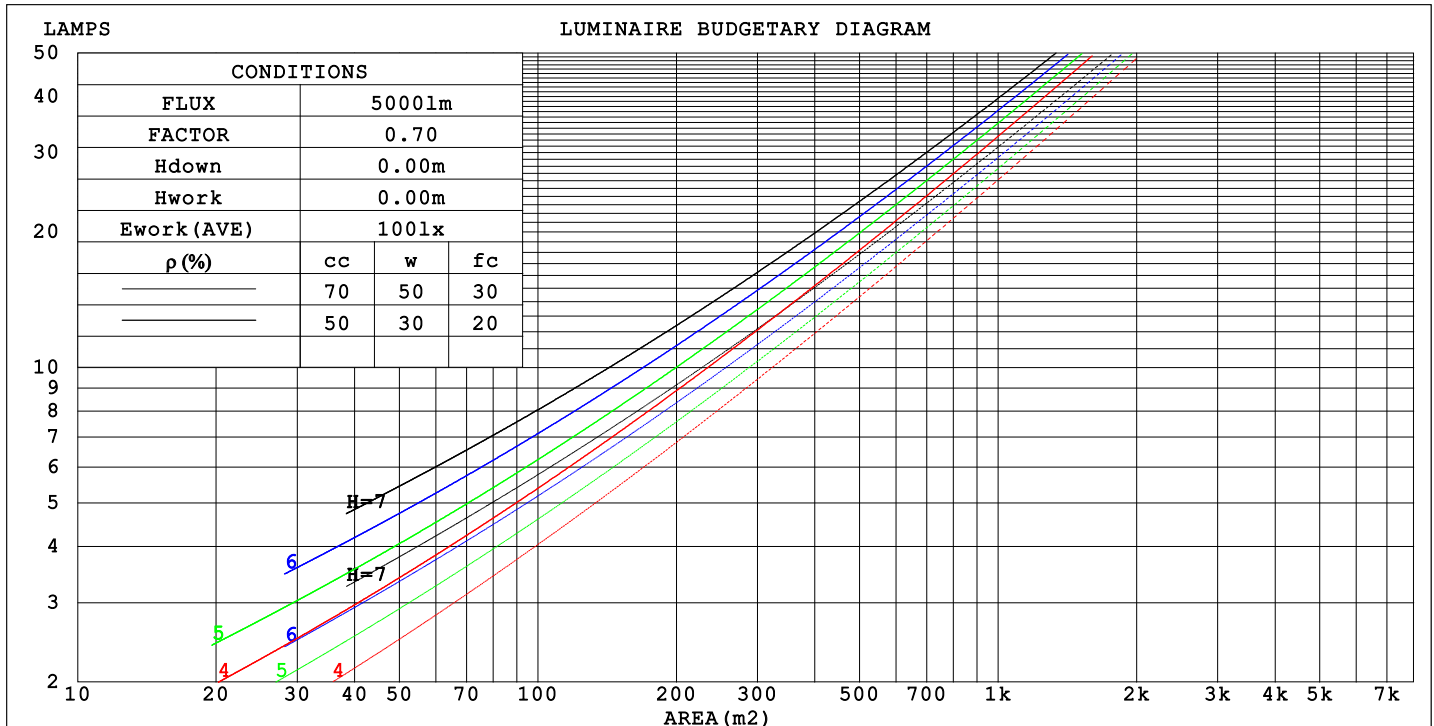
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 15 November 2022

γ Range: 0 - 140DEG  
 γ Interval: 5.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 140DEG  
γ Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

## WEC AND CCEC

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.490	.279	.088	.474	.270	.086	.444	.255	.081	.416	.240	.077	.391	.226	.073	
2.0	.418	.229	.070	.403	.222	.068	.376	.209	.065	.351	.197	.062	.328	.185	.058	
3.0	.368	.196	.059	.355	.190	.057	.330	.179	.054	.307	.168	.052	.286	.158	.049	
4.0	.329	.171	.050	.317	.166	.049	.295	.156	.047	.274	.147	.044	.255	.139	.042	
5.0	.298	.152	.044	.287	.148	.043	.267	.139	.041	.248	.131	.039	.230	.123	.037	
6.0	.272	.137	.039	.263	.133	.038	.244	.125	.036	.227	.118	.035	.210	.111	.033	
7.0	.251	.124	.035	.242	.120	.034	.225	.114	.033	.209	.107	.031	.194	.101	.030	
8.0	.232	.113	.032	.224	.110	.031	.208	.104	.030	.194	.098	.028	.180	.092	.027	
9.0	.216	.104	.029	.208	.102	.029	.194	.096	.027	.180	.090	.026	.168	.085	.025	
10.0	.202	.097	.027	.195	.094	.026	.182	.089	.025	.169	.084	.024	.157	.079	.023	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.412	.412	.412	.352	.352	.352	.240	.240	.240	.138	.138	.138	.044	.044	.044	
1.0	.409	.371	.336	.350	.318	.290	.239	.219	.200	.138	.127	.116	.044	.041	.038	
2.0	.401	.343	.295	.344	.296	.255	.235	.205	.178	.136	.119	.104	.044	.038	.034	
3.0	.392	.324	.269	.336	.279	.233	.231	.194	.164	.133	.113	.097	.043	.037	.032	
4.0	.383	.309	.252	.328	.267	.219	.226	.186	.154	.131	.109	.091	.042	.035	.030	
5.0	.373	.297	.241	.320	.257	.209	.221	.180	.148	.128	.105	.088	.041	.034	.029	
6.0	.364	.287	.233	.313	.249	.202	.216	.174	.143	.125	.103	.085	.040	.034	.028	
7.0	.355	.280	.226	.306	.242	.197	.211	.170	.140	.123	.100	.083	.040	.033	.028	
8.0	.347	.273	.222	.299	.237	.193	.207	.166	.137	.120	.098	.082	.039	.032	.027	
9.0	.339	.267	.218	.292	.232	.190	.203	.163	.135	.118	.096	.081	.038	.032	.027	
10.0	.332	.262	.215	.286	.228	.188	.199	.160	.133	.116	.095	.080	.038	.031	.026	

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 140DEG  
γ Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

NAME: 93M20TLB1040/BL					TYPE:			WEIGHT: 1			
SPEC.:					DIM.: F100			SERIAL No.: 0			
MFR.: Elmark Industries JSC					SUR.: sphere			Shielding Angle:			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H	y = 2H	28.1	29.5	28.7	30.1	30.7	30.9	32.3	31.4	32.8	33.4
	3H	30.0	31.3	30.6	31.9	32.5	33.3	34.6	33.9	35.2	35.8
	4H	31.1	32.3	31.7	32.9	33.6	34.7	35.9	35.3	36.5	37.1
	6H	32.4	33.5	33.0	34.1	34.8	36.2	37.3	36.8	37.9	38.6
	8H	33.1	34.2	33.7	34.8	35.5	37.0	38.1	37.6	38.8	39.5
	12H	34.0	35.0	34.6	35.7	36.4	38.0	39.1	38.7	39.7	40.5
4H	2H	29.1	30.3	29.6	30.9	31.5	31.2	32.4	31.8	33.0	33.6
	3H	31.1	32.2	31.8	32.8	33.6	33.8	34.9	34.4	35.5	36.2
	4H	32.4	33.4	33.0	34.0	34.8	35.3	36.3	36.0	36.9	37.7
	6H	33.8	34.7	34.5	35.4	36.1	37.1	38.0	37.7	38.6	39.4
	8H	34.6	35.4	35.3	36.1	36.9	38.1	38.9	38.7	39.6	40.4
	12H	35.6	36.3	36.3	37.0	37.8	39.3	40.0	39.9	40.7	41.5
8H	4H	33.1	34.0	33.8	34.6	35.4	35.5	36.4	36.2	37.1	37.9
	6H	34.8	35.5	35.5	36.2	37.1	37.5	38.2	38.2	39.0	39.8
	8H	35.8	36.4	36.5	37.1	38.0	38.7	39.4	39.4	40.1	40.9
	12H	36.9	37.5	37.7	38.2	39.1	40.2	40.7	40.9	41.5	42.3
12H	4H	33.3	34.1	34.0	34.8	35.6	35.6	36.3	36.3	37.0	37.9
	6H	35.2	35.8	35.9	36.5	37.4	37.6	38.3	38.4	39.0	39.9
	8H	36.2	36.8	37.0	37.5	38.4	38.9	39.5	39.7	40.2	41.1
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H		+ 0.2 / - 0.2					+ 0.2 / - 0.2				
2.0H		+ 0.2 / - 0.3					+ 0.3 / - 0.4				

CIE Pub.117, 800.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.8)  
Area: 0.0007065 m2

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 140DEG  
γ Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

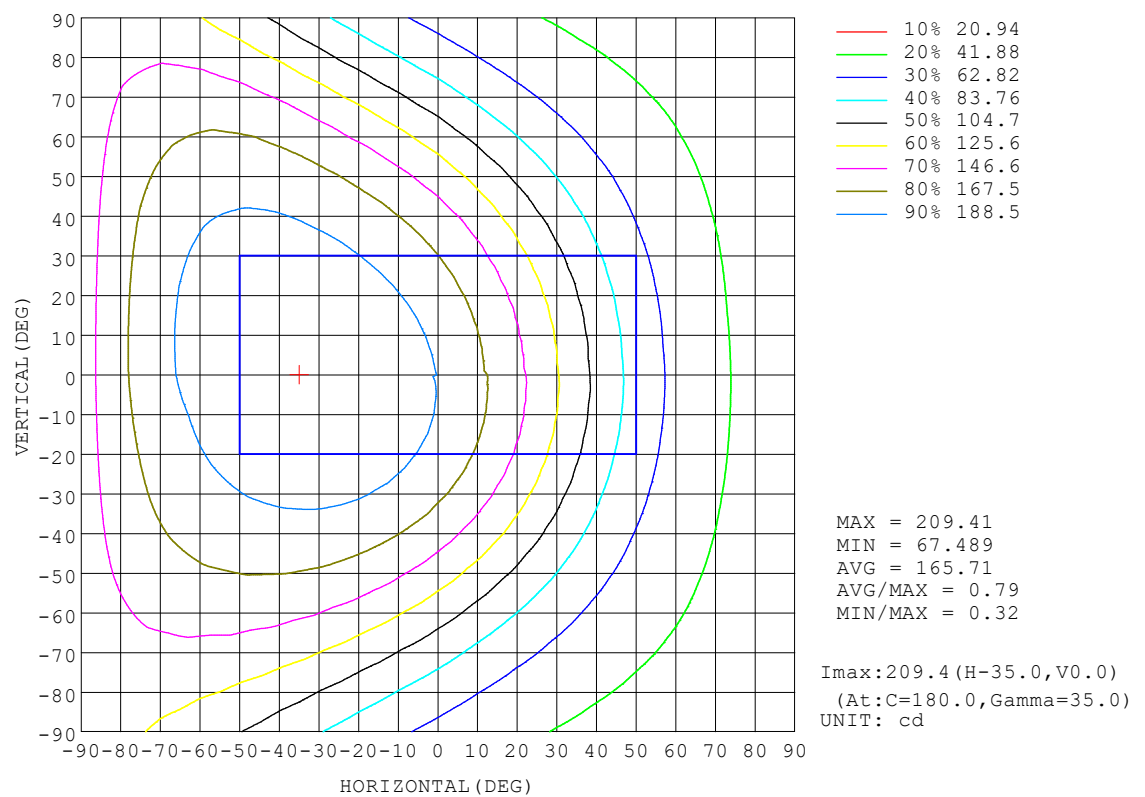
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	41	32	54	40	31	52	39	31	23
0.80	67	51	41	65	50	40	61	48	39	30
1.00	76	60	49	73	58	49	69	59	47	36
1.25	84	68	58	81	67	57	76	64	55	43
1.50	90	75	64	87	73	63	81	69	60	47
2.00	99	85	75	95	83	73	88	78	69	55
2.50	105	92	82	101	89	80	93	83	75	60
3.00	109	98	88	105	94	86	97	88	81	64
4.00	115	105	97	110	101	94	102	94	88	70
5.00	119	110	103	114	106	99	105	98	93	74
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 140DEG  
γ Interval: 5.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.265m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:



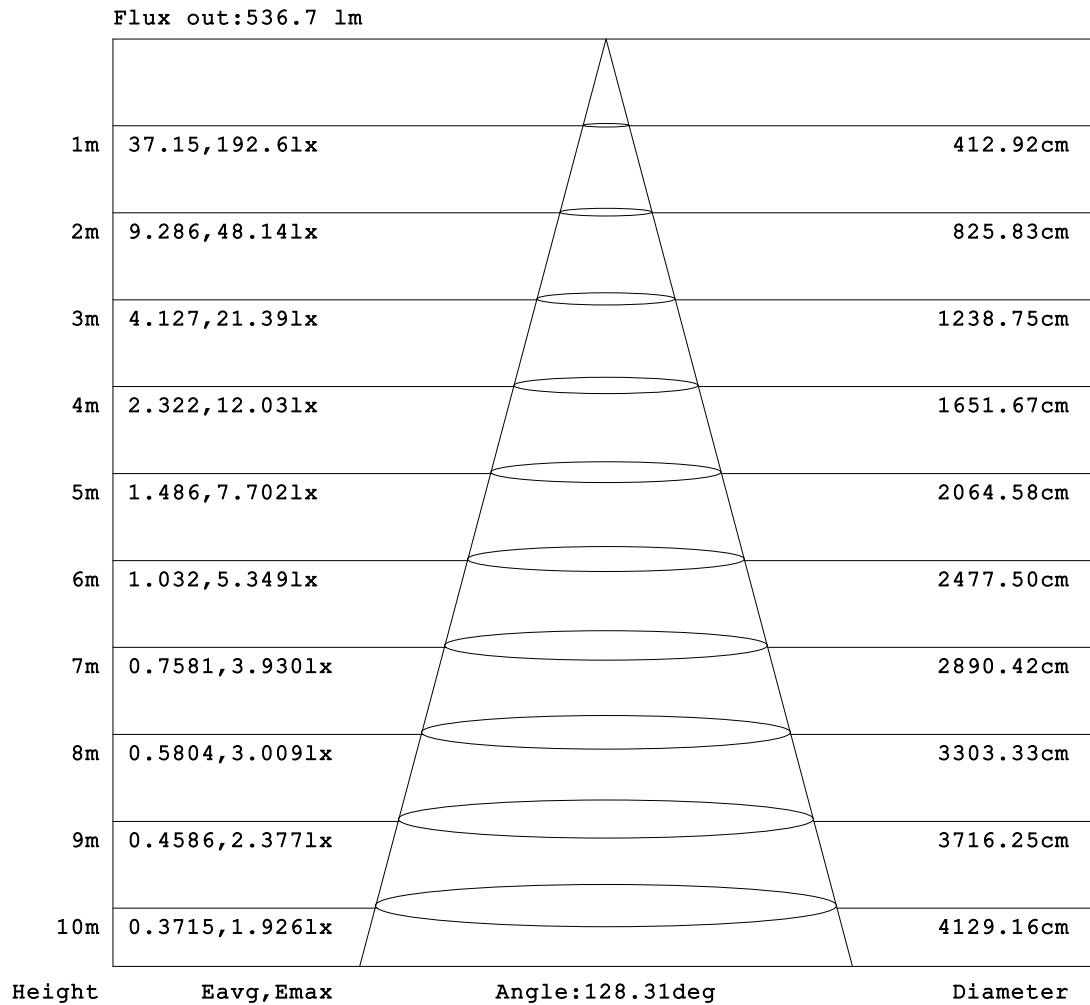
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

$\gamma$  Range: 0 - 140DEG  
 $\gamma$  Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:



**AAI Figure**

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:



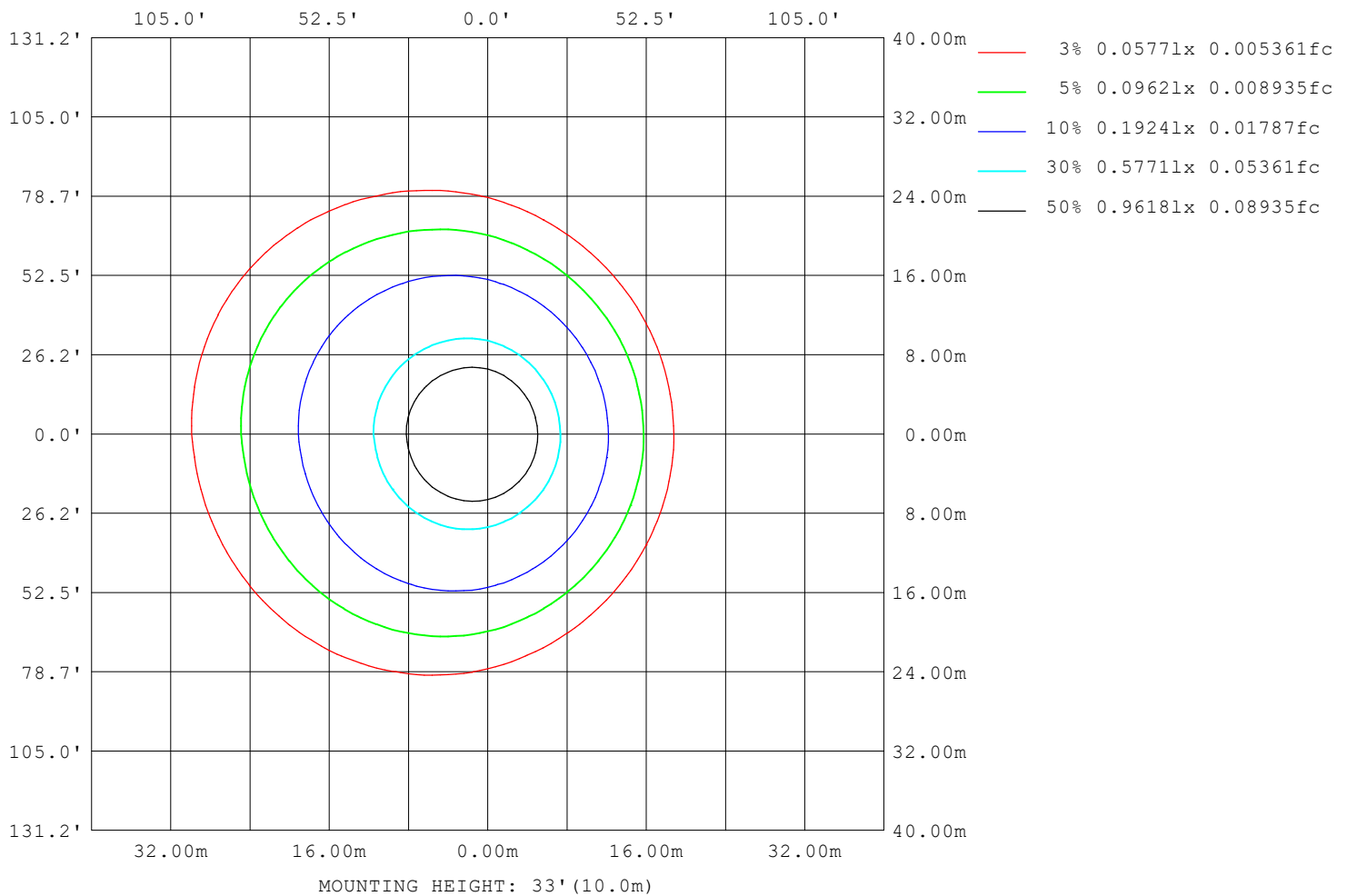
**Note:** The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 15 November 2022

γ Range: 0 - 140DEG  
 γ Interval: 5.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 140DEG  
γ Interval: 5.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.265m [K=1.0000]  
Remarks:

### LED Avg.L Report

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

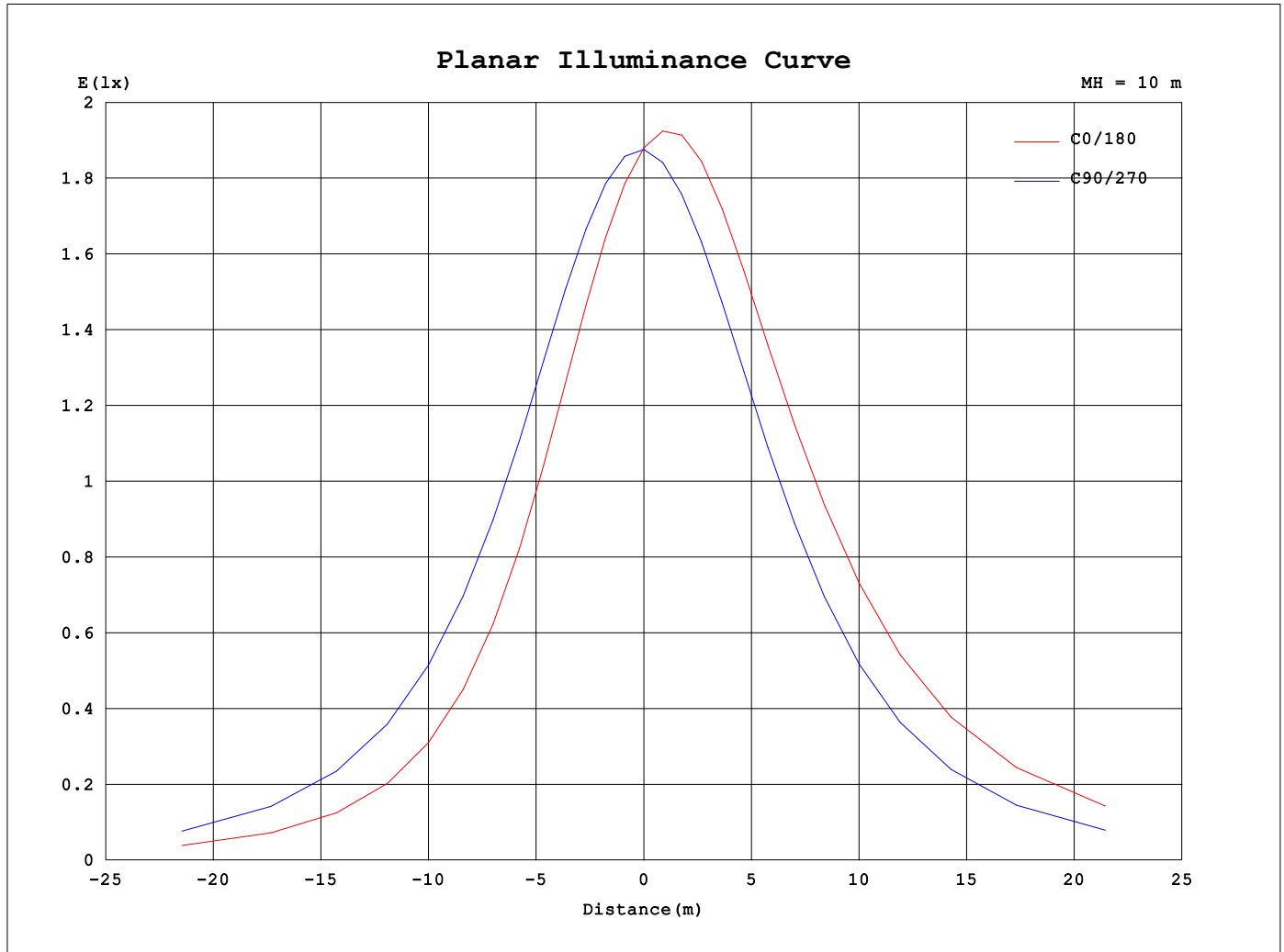
AvgL	cd/m2
L_0~180 (65) av	402941
L_0~180 (75) av	586073
L_0~180 (85) av	1480890
L_90~270 (65) av	347573
L_90~270 (75) av	451486
L_90~270 (85) av	1048479
L_45 (65) av	377494
L_45 (75) av	525294
L_45 (85) av	1275273

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 140DEG  
γ Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

# Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 15 November 2022

$\gamma$  Range: 0 - 140DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
5	180	180	180	181	181	181	181	182	182	183	183	184	184	185	185	186	187	187	188
10	172	172	172	173	173	174	174	175	176	177	178	179	180	181	182	183	184	186	187
15	162	162	163	164	164	165	166	167	168	170	171	173	174	176	178	179	181	183	185
20	151	152	152	153	154	155	156	158	159	162	163	165	167	170	172	174	177	179	181
25	139	140	140	141	142	144	145	147	149	152	154	157	159	162	165	168	171	174	177
30	126	127	127	129	130	132	133	136	137	141	143	146	149	153	156	160	164	167	171
35	113	114	114	115	116	119	120	123	125	128	131	135	139	143	146	151	155	160	163
40	99.9	101	101	102	103	105	107	110	112	116	119	123	127	132	136	141	145	151	155
45	87.6	88.0	88.4	89.5	90.4	92.6	94.3	97.3	99.7	103	107	111	115	120	124	130	135	141	146
50	76.2	76.4	76.9	77.9	79.0	80.7	82.7	85.3	87.9	91.3	94.6	99.0	103	108	113	119	124	130	135
55	66.3	66.5	67.0	67.8	68.9	70.4	72.2	74.5	77.0	80.1	83.6	87.5	91.4	96.5	101	107	112	119	125
60	58.1	58.3	58.6	59.4	60.3	61.6	63.2	65.2	67.4	70.3	73.4	77.0	81.0	85.5	90.0	95.8	101	108	114
65	51.3	51.4	51.7	52.4	53.2	54.4	55.8	57.5	59.5	61.9	64.6	67.8	71.5	75.6	80.0	85.2	90.2	96.7	103
70	45.6	45.7	46.0	46.6	47.3	48.3	49.6	51.1	52.8	54.9	57.3	60.1	63.2	66.9	70.9	75.5	80.4	86.2	91.9
75	40.6	40.8	41.0	41.6	42.2	43.2	44.3	45.6	47.2	49.1	51.1	53.6	56.3	59.5	62.9	67.0	71.4	76.6	82.1
80	36.3	36.4	36.7	37.2	37.8	38.7	39.7	41.0	42.3	44.1	45.9	48.1	50.5	53.2	56.3	59.8	63.6	68.1	73.0
85	32.3	32.4	32.7	33.2	33.8	34.7	35.6	36.8	38.1	39.7	41.3	43.3	45.4	47.9	50.5	53.6	56.9	60.6	64.8
90	28.7	28.8	29.1	29.6	30.1	31.0	31.9	33.0	34.2	35.7	37.2	39.1	41.0	43.2	45.6	48.3	51.1	54.2	57.6
95	25.4	25.4	25.7	26.2	26.8	27.5	28.4	29.5	30.7	32.1	33.6	35.3	37.1	39.1	41.2	43.6	45.6	45.0	49.7
100	22.3	22.4	22.6	23.0	23.6	24.4	25.3	26.3	27.5	28.8	30.2	31.8	33.5	35.3	37.0	38.1	36.9	29.1	23.4
105	19.4	19.5	19.7	20.2	20.7	21.4	22.3	23.3	24.4	25.7	27.1	28.5	30.0	31.3	32.0	31.5	28.2	20.5	14.7
110	16.7	16.8	17.0	17.5	18.0	18.7	19.6	20.6	21.6	22.8	24.1	25.3	26.3	26.9	26.7	25.3	21.6	15.6	21.9
115	14.2	14.3	14.6	15.0	15.5	16.3	17.0	18.0	19.0	20.0	21.0	21.9	22.5	22.6	21.8	20.1	16.7	14.1	21.4
120	12.0	12.1	12.3	12.7	13.2	14.0	14.7	15.6	16.4	17.3	18.0	18.5	18.8	18.5	17.6	15.8	13.1	13.6	19.8
125	9.92	10.0	10.3	10.7	11.2	11.8	12.5	13.2	13.9	14.6	15.1	15.4	15.4	15.0	14.0	12.5	10.4	13.2	18.4
130	8.11	8.22	8.44	8.84	9.29	9.87	10.4	11.0	11.6	12.1	12.4	12.5	12.4	11.9	11.0	9.87	9.43	12.8	17.0
135	6.54	6.62	6.84	7.18	7.59	8.05	8.53	9.01	9.43	9.78	9.97	10.0	9.81	9.40	8.68	7.77	9.31	12.3	15.7
140	5.20	5.24	5.45	5.71	6.08	6.42	6.83	7.18	7.53	7.74	7.87	7.84	7.68	7.31	6.79	6.84	9.18	11.7	14.5
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:15 November 2022

γ Range: 0 - 140DEG

γ Interval: 5.0DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.265m [K=1.0000]

Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

Table--2

UNIT: cd

C (DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
5	188	189	190	190	191	191	192	192	192	193	193	194	194	194	194	194	194	194	194
10	188	189	190	192	193	194	195	196	197	198	198	199	199	199	200	200	200	200	200
15	187	189	190	192	194	195	197	198	199	201	202	202	203	203	204	204	204	204	204
20	184	186	188	191	193	195	197	199	201	202	204	205	205	206	206	206	207	207	206
25	180	183	185	188	191	194	196	199	201	203	204	206	207	207	208	208	208	208	208
30	175	178	181	185	188	191	194	197	199	202	204	205	207	207	208	208	209	209	208
35	168	172	176	180	183	187	190	193	196	199	202	204	205	207	207	208	208	209	208
40	161	165	169	174	178	182	186	189	192	195	198	201	203	204	206	207	208	208	208
45	152	156	162	166	171	175	180	184	187	191	194	196	199	201	203	205	206	206	206
50	142	147	153	158	164	168	173	177	181	185	188	191	194	197	199	201	203	204	204
55	131	137	144	149	155	160	166	170	175	179	182	186	189	192	194	197	199	200	200
60	120	126	133	139	146	151	157	162	167	171	176	179	183	186	189	191	194	195	196
65	109	115	122	128	135	141	148	153	158	163	168	171	175	179	182	185	188	189	190
70	98.3	104	111	117	124	130	137	142	148	153	159	163	167	171	175	178	181	182	183
75	87.7	93.2	99.9	106	113	119	126	131	137	142	148	152	157	161	165	168	172	174	175
80	77.9	83.2	89.1	94.7	101	107	114	119	126	131	136	141	146	150	154	157	161	163	164
85	69.1	73.9	79.1	84.4	90.3	95.6	102	107	113	118	124	128	133	137	141	144	148	150	151
90	61.5	65.6	70.0	74.7	79.9	84.9	90.5	95.3	101	105	111	115	120	123	127	130	133	135	136
95	55.0	58.5	62.3	66.2	70.6	74.9	79.7	84.2	88.9	93.0	97.9	101	106	109	113	115	118	119	120
100	42.1	52.9	56.0	59.1	62.6	66.2	70.1	73.9	77.9	81.7	85.6	88.9	92.5	94.9	98.1	99.8	102	104	103
105	33.5	45.2	50.6	53.1	55.9	58.7	61.9	65.0	68.2	71.3	74.5	77.2	80.1	82.3	84.5	86.0	87.5	88.4	88.3
110	28.5	38.0	44.5	47.8	50.2	52.5	55.0	57.4	60.0	62.4	65.0	67.1	69.3	71.0	72.6	73.7	74.6	75.2	74.8
115	25.1	32.5	38.5	42.5	45.1	47.0	49.1	51.0	53.1	55.0	57.0	58.6	60.3	61.5	62.7	63.5	64.1	64.4	64.0
120	22.7	28.3	33.4	37.3	40.3	42.3	44.1	45.6	47.3	48.8	50.4	51.6	53.0	53.9	54.7	55.2	55.7	55.9	55.5
125	20.7	24.9	29.2	32.7	35.6	37.8	39.6	40.9	42.4	43.5	44.8	45.8	46.8	47.6	48.2	48.6	48.9	49.0	48.7
130	19.0	22.2	25.7	28.8	31.4	33.6	35.3	36.7	37.9	39.0	40.0	40.8	41.7	42.2	42.7	43.0	43.3	43.4	43.1
135	17.4	19.9	22.8	25.4	27.8	29.7	31.4	32.8	34.0	34.9	35.8	36.4	37.1	37.6	38.0	38.3	38.4	38.5	38.3
140	16.0	18.0	20.3	22.5	24.5	26.3	27.8	29.1	30.2	31.1	31.9	32.5	33.1	33.5	33.8	34.1	34.2	34.2	34.1
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:15 November 2022

γ Range: 0 - 140DEG

γ Interval: 5.0DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.265m [K=1.0000]

Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

Table--3

UNIT: cd

C (DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
5	194	194	193	193	193	192	192	191	191	190	190	189	189	188	187	187	186	186	185
10	199	199	198	198	197	196	195	194	193	192	191	190	189	188	186	185	184	183	182
15	203	203	202	201	200	199	198	196	195	193	192	190	188	186	184	183	181	179	178
20	206	205	204	203	202	200	199	197	195	193	191	189	186	184	182	180	177	175	173
25	207	206	205	204	203	201	199	197	195	192	189	187	184	181	179	176	173	170	167
30	208	207	206	205	203	201	199	196	193	190	187	184	181	178	175	171	168	164	161
35	208	207	206	204	202	200	198	194	191	188	184	181	177	174	170	166	162	157	154
40	207	206	205	203	201	198	196	192	189	185	181	177	173	168	164	159	155	150	145
45	206	205	204	202	199	196	193	189	186	181	177	172	167	162	157	152	146	140	135
50	204	203	201	199	197	193	190	186	182	177	172	166	161	155	149	143	137	131	125
55	200	199	198	196	193	190	186	181	177	171	165	159	153	146	140	133	127	120	114
60	196	195	194	192	189	185	181	176	170	164	158	150	144	136	130	122	116	109	103
65	191	190	189	187	184	179	175	169	162	155	148	140	134	126	119	111	105	97.7	91.6
70	184	184	182	180	176	172	166	160	153	145	138	129	122	114	107	99.7	93.8	87.0	81.1
75	176	175	174	171	167	162	156	149	142	133	126	117	110	102	95.6	88.7	83.0	76.8	71.6
80	165	164	162	159	156	150	144	136	129	121	113	105	98.1	90.6	84.4	78.2	73.0	67.7	63.3
85	152	151	149	146	142	136	130	122	115	107	100	92.4	86.2	79.8	74.2	68.8	64.3	59.9	56.2
90	137	135	134	130	126	120	114	107	101	93.4	87.4	80.9	75.3	69.9	65.1	60.6	56.8	53.2	50.2
95	120	119	117	113	110	104	98.9	92.4	87.1	81.1	75.8	70.5	65.9	61.5	57.6	53.8	48.4	42.6	44.7
100	104	102	100	96.7	93.5	88.5	84.4	79.4	74.8	70.0	65.9	61.7	58.2	54.8	51.6	42.9	15.3	25.8	36.2
105	88.0	86.6	84.7	81.9	79.1	75.4	72.0	68.1	64.7	61.0	57.8	54.6	51.8	49.0	44.7	33.8	15.9	12.7	19.8
110	74.4	73.1	71.7	69.5	67.3	64.6	62.0	59.1	56.5	53.6	51.2	48.6	46.4	43.2	37.4	28.3	22.2	14.6	20.8
115	63.6	62.5	61.4	59.8	58.1	56.0	54.1	51.9	49.9	47.6	45.7	43.5	41.2	37.3	31.8	24.5	20.5	13.3	16.0
120	55.2	54.3	53.5	52.1	50.9	49.3	47.8	46.0	44.4	42.6	41.0	38.8	36.1	32.3	27.5	21.9	19.0	12.9	12.5
125	48.4	47.7	47.0	46.0	45.0	43.8	42.6	41.1	39.8	38.2	36.6	34.4	31.7	28.2	24.1	19.9	17.5	12.4	9.92
130	42.9	42.3	41.8	40.9	40.1	39.1	38.1	36.8	35.7	34.2	32.6	30.4	27.9	24.9	21.5	18.3	16.0	11.9	8.84
135	38.1	37.7	37.2	36.5	35.8	34.9	34.1	33.0	31.9	30.4	28.9	26.9	24.7	22.1	19.3	16.9	14.6	11.4	8.73
140	33.9	33.5	33.2	32.6	32.0	31.3	30.4	29.5	28.4	27.1	25.6	23.9	21.9	19.8	17.5	15.6	13.7	11.0	8.65
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:15 November 2022

γ Range: 0 - 140DEG

γ Interval: 5.0DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.265m [K=1.0000]

Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 93M20TLB1040/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

Table--4

UNIT: cd

C (DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187				
5	184	184	183	183	182	182	181	181	181	181	180	180	180	180	180				
10	180	179	178	177	176	176	175	174	174	173	172	172	172	172	172				
15	176	174	173	171	170	169	167	166	165	165	164	163	163	162	162				
20	170	168	166	164	162	161	159	158	156	155	153	153	152	152	151				
25	164	162	159	156	153	152	149	147	145	144	142	142	140	140	140				
30	157	154	150	147	144	141	138	136	134	132	130	129	128	128	127				
35	149	145	141	137	133	130	127	124	121	120	117	116	115	114	113				
40	140	135	130	126	122	118	115	112	109	107	104	103	102	101	100				
45	129	125	119	115	110	107	102	99.7	96.5	94.4	91.9	90.8	89.0	88.6	88.0				
50	119	114	108	103	98.4	94.8	90.7	87.9	85.0	82.8	80.7	79.2	77.9	77.1	76.5				
55	107	102	96.4	92.0	87.4	83.6	80.0	77.2	74.5	72.3	70.4	69.1	67.9	67.2	66.6				
60	96.2	91.1	85.8	81.3	77.0	73.6	70.3	67.7	65.3	63.4	61.7	60.5	59.4	58.8	58.3				
65	85.7	80.6	75.8	71.7	67.9	64.8	61.9	59.7	57.5	55.9	54.4	53.3	52.5	51.9	51.5				
70	75.7	71.1	66.8	63.3	60.0	57.3	54.9	52.9	51.0	49.6	48.3	47.3	46.5	46.1	45.7				
75	66.8	62.9	59.2	56.2	53.3	51.0	48.9	47.1	45.5	44.2	43.1	42.2	41.5	41.1	40.7				
80	59.2	55.9	52.7	50.1	47.7	45.7	43.7	42.2	40.7	39.5	38.5	37.7	37.1	36.7	36.4				
85	52.8	49.9	47.2	44.9	42.7	40.9	39.2	37.8	36.4	35.3	34.4	33.7	33.1	32.7	32.4				
90	47.2	44.8	42.4	40.4	38.4	36.8	35.2	33.8	32.6	31.6	30.7	30.0	29.4	29.0	28.8				
95	42.4	40.2	38.1	36.3	34.5	32.9	31.5	30.2	29.1	28.1	27.2	26.6	26.0	25.7	25.5				
100	37.1	36.0	34.3	32.6	31.0	29.5	28.1	26.9	25.8	24.9	24.1	23.4	22.9	22.5	22.3				
105	23.5	26.5	27.7	28.3	27.7	26.3	25.0	23.9	22.8	21.9	21.1	20.5	20.0	19.7	19.5				
110	24.4	26.0	25.8	19.8	21.4	22.1	21.9	21.1	20.1	19.2	18.4	17.8	17.3	17.0	16.8				
115	19.3	21.2	21.8	21.7	21.1	15.5	15.1	16.1	16.0	16.0	15.6	15.3	14.8	14.5	14.3				
120	15.2	17.0	17.9	18.1	17.9	17.4	16.6	15.9	15.1	8.91	11.1	12.2	12.2	12.3	12.1				
125	11.9	13.5	14.4	14.8	14.8	14.6	14.0	13.5	12.8	12.2	10.5	8.99	9.55	10.1	10.02				
130	9.34	10.6	11.4	11.9	12.0	12.0	11.6	11.2	10.7	10.2	9.63	8.28	7.72	8.01	8.16				
135	7.38	8.32	8.98	9.43	9.61	9.61	9.42	9.14	8.75	8.32	7.88	7.45	5.79	6.19	6.43				
140	6.56	6.49	7.02	7.35	7.55	7.57	7.49	7.29	7.01	6.67	6.31	5.95	5.65	4.86	4.99				
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:15 November 2022

γ Range: 0 - 140DEG

γ Interval: 5.0DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.265m [K=1.0000]

Remarks: