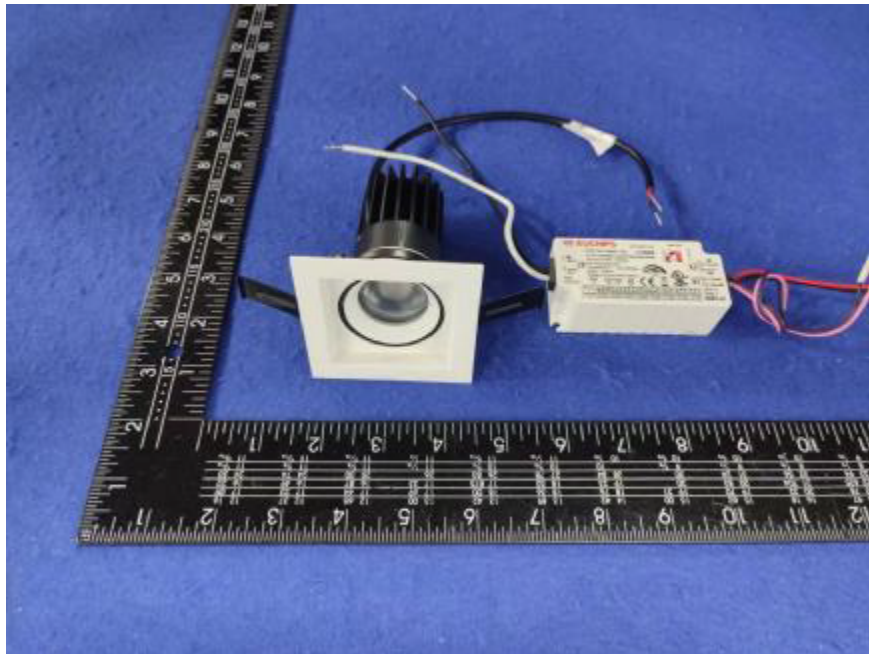


Photometric Report for each Light Engine used in  
double and triple configuration  
for Flanged and Flangeless Trim



Light Output Ratio:	65.2%	
Luminaire Power:	11.34 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.50	fine grid method.

C Range: 0 - 360DEG  
C Interval: For a lens beam angle of 24°  
Test Speed: HIGH  
Temperature: 77.54 °F  
Operators: zoe  
Test Date: 2023-12-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 124.409" [K=1.0000]  
Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
LENS: PM-1103A 24R+DIFFUSER  
DRIVER: PUP10A-1WMC-700 500mA  
30minutes warm-up

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

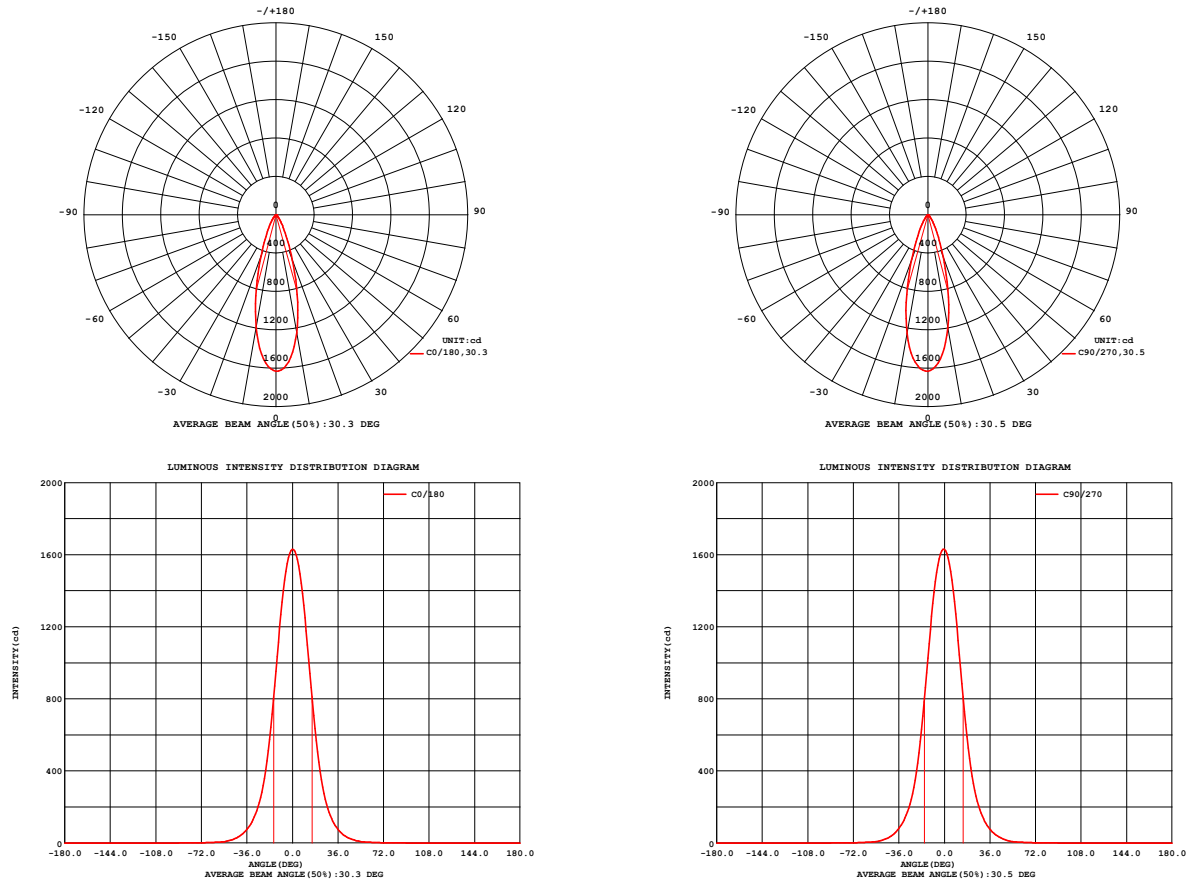


Fig. C0/C180

Fig. C90/C270

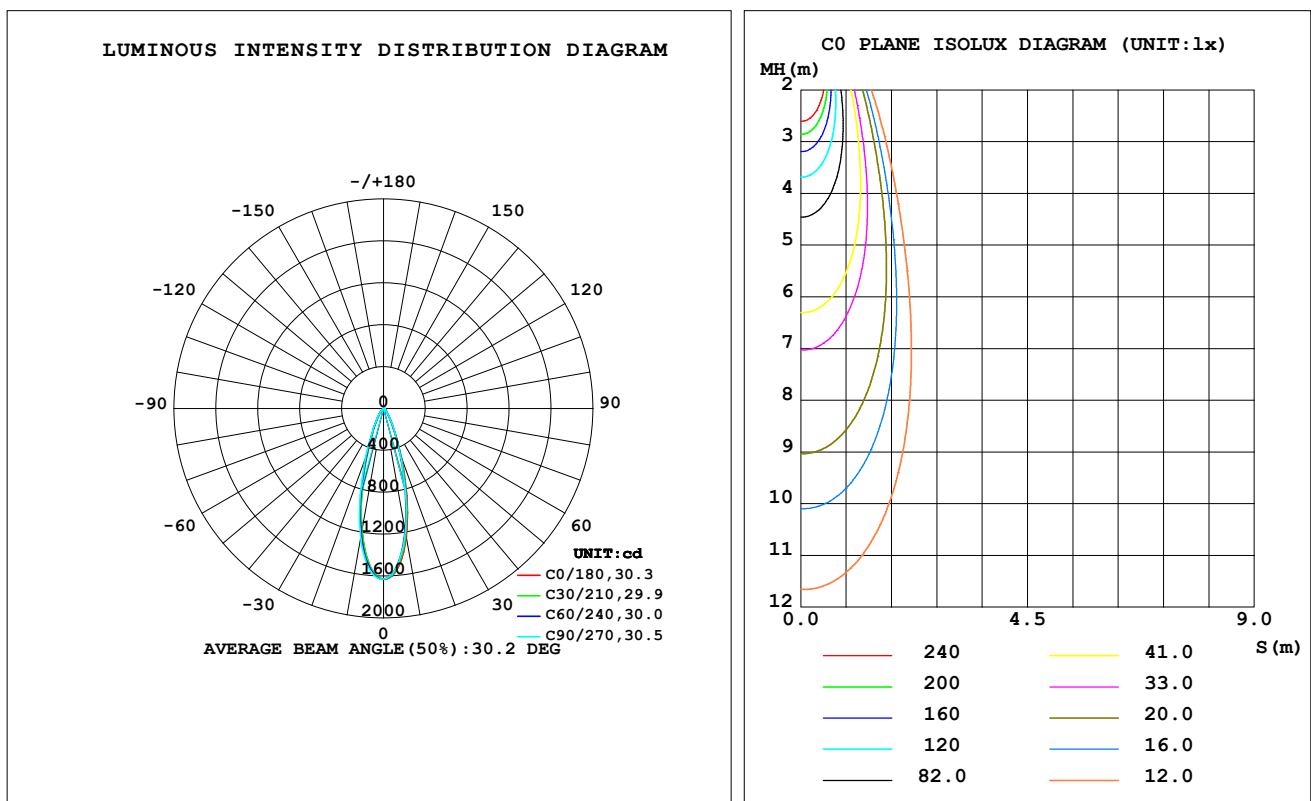
C Range: 0 - 360DEG  
C Interval: For a lens beam angle of 24°  
Test Speed: HIGH  
Temperature: 77.54 °F  
Operators: zoe  
Test Date: 2023-12-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 124.409" [K=1.0000]  
Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
LENS: PM-1103A 24R+DIFFUSER  
DRIVER: PUP10A-1WMC-700 500mA  
30minutes warm-up

## LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 51.15 lm/W
MODEL	Bridgelux	I <sub>max</sub> (cd)	1631	S/MH (C0/180)		0.49
NOMINAL POWER (W)	11	LOR (%)	65.2	S/MH (C90/270)		0.52
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	580.08	η UP, DN (C0-180)		0.0, 32.4
NOMINAL FLUX (lm)	889.25	CIE CLASS	DIRECT	η UP, DN (C180-360)		0.0, 32.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.50
TEST VOLTAGE (V)	120	η down (%)	65.2	CIBSE SHR MAX		0.50



C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54 °F  
 Operators: zoe  
 Test Date: 2023-12-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

## ZONAL FLUX DIAGRAM

**ZONAL FLUX DIAGRAM:**

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	1250	1208	1198	1204	1193	1209	1259	1278	0- 10	135.8	135.8	23.4,15.3
20	505.3	475.9	469.4	473.5	455.3	462.2	500.0	523.1	10- 20	226.3	362.1	62.4,40.7
30	152.0	145.1	149.6	155.3	144.2	144.2	155.0	161.6	20- 30	126.5	488.6	84.2,54.9
40	47.82	47.11	49.42	52.93	46.84	47.65	49.70	51.90	30- 40	56.42	545.0	93.9,61.3
50	14.13	16.22	13.79	17.97	12.49	15.92	13.54	17.87	40- 50	22.54	567.5	97.8,63.8
60	4.421	5.204	4.300	5.059	4.070	4.825	4.218	5.241	50- 60	7.983	575.5	99.2,64.7
70	1.676	2.072	1.581	1.943	1.314	1.748	1.393	1.997	60- 70	3.127	578.6	99.7,65.1
80	0.5757	0.6528	0.5323	0.5611	0.4558	0.5341	0.5103	0.6234	70- 80	1.067	579.7	99.9,65.2
90	0	0	0	0	0	0	0	0	80- 90	0.3848	580.1	100,65.2
100	0	0	0	0	0	0	0	0	90-100	0	580.1	100,65.2
110	0	0	0	0	0	0	0	0	100-110	0	580.1	100,65.2
120	0	0	0	0	0	0	0	0	110-120	0	580.1	100,65.2
130	0	0	0	0	0	0	0	0	120-130	0	580.1	100,65.2
140	0	0	0	0	0	0	0	0	130-140	0	580.1	100,65.2
150	0	0	0	0	0	0	0	0	140-150	0	580.1	100,65.2
160	0	0	0	0	0	0	0	0	150-160	0	580.1	100,65.2
170	0	0	0	0	0	0	0	0	160-170	0	580.1	100,65.2
180	0	0	0	0	0	0	0	0	170-180	0	580.1	100,65.2
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG

C Interval:For a lens beam angle of 24°

Test Speed: HIGH

Temperature:77.54 °F

Operators:zoe

Test Date:2023-12-28

 $\gamma$  Range: 0 - 180DEG

 $\gamma$  Interval: 1.0DEG

Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity:65.0%

Test Distance:124.409" [K=1.0000]

Remarks: LAMP:BXRV-DR-1830G-100Z-A-23 Ra:90

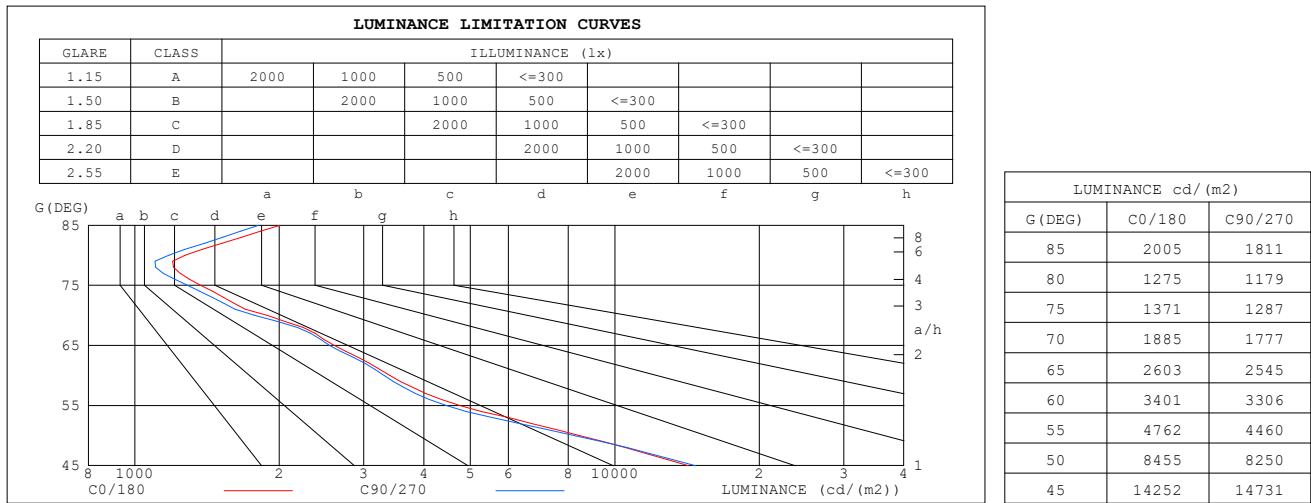
LENS:PM-1103A 24R+DIFFUSER

DRIVER:PUP10A-1WMC-700 500mA

30minutes warm-up

## LUMINANCE LIMITATION CURVES

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:



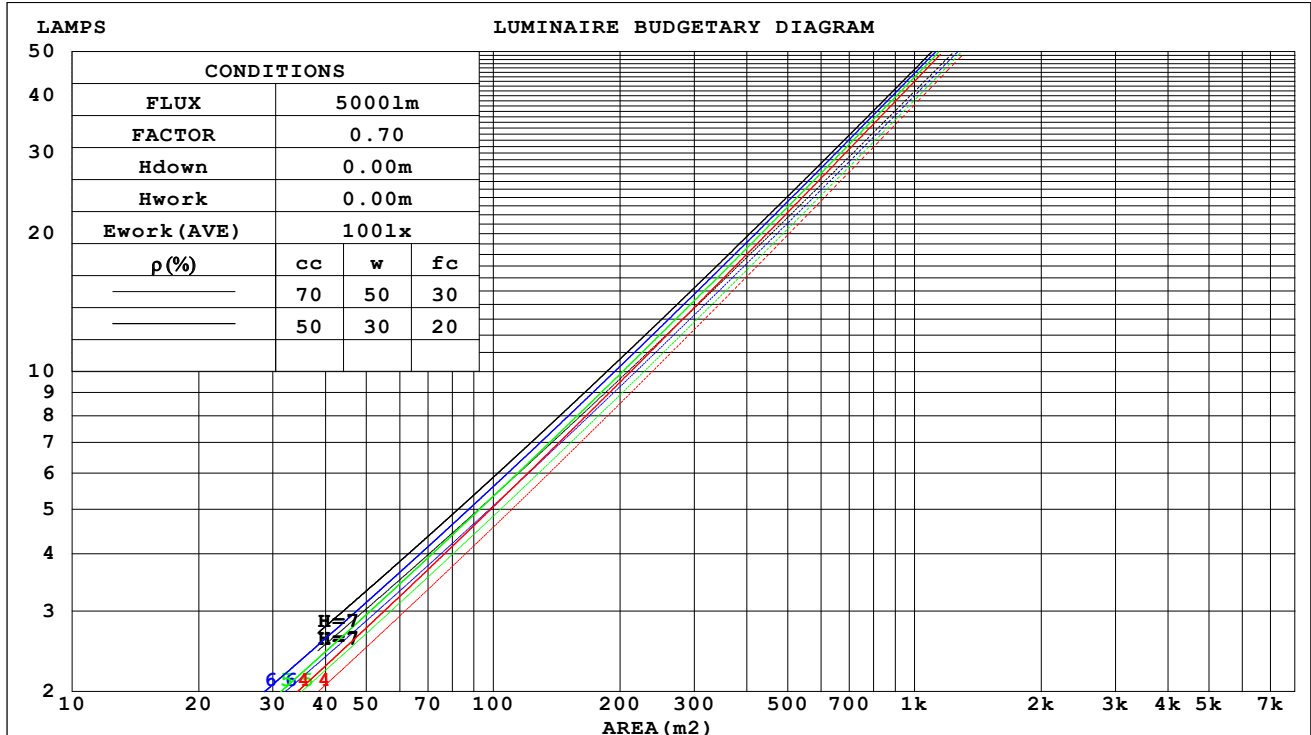
C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54 °F  
 Operators: zoe  
 Test Date: 2023-12-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	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: For a lens beam angle of 24°

Test Speed: HIGH

Temperature: 77.54 °F

Operators: zoe

Test Date: 2023-12-28

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity: 65.0%

Test Distance: 124.409" [K=1.0000]

Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90

LENS: PM-1103A 24R+DIFFUSER

DRIVER: PUP10A-1WMC-700 500mA

30minutes warm-up

**WEC AND CCEC**

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	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	.103	.059	.019	.099	.056	.018	.091	.052	.017	.083	.048	.015	.076	.044	.014	
2.0	.097	.053	.016	.094	.052	.016	.087	.048	.015	.081	.045	.014	.075	.042	.013	
3.0	.092	.049	.015	.089	.047	.014	.083	.045	.014	.078	.042	.013	.073	.040	.012	
4.0	.087	.045	.013	.084	.044	.013	.079	.042	.013	.075	.040	.012	.070	.038	.012	
5.0	.082	.042	.012	.080	.041	.012	.076	.039	.012	.072	.038	.011	.068	.036	.011	
6.0	.078	.039	.011	.076	.038	.011	.072	.037	.011	.069	.036	.011	.066	.035	.010	
7.0	.074	.037	.010	.072	.036	.010	.069	.035	.010	.066	.034	.010	.063	.033	.010	
8.0	.071	.035	.010	.069	.034	.010	.066	.033	.009	.064	.032	.009	.061	.031	.009	
9.0	.068	.033	.009	.066	.032	.009	.064	.032	.009	.061	.031	.009	.059	.030	.009	
10.0	.065	.031	.009	.064	.031	.009	.061	.030	.008	.059	.029	.008	.057	.029	.008	

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	.124	.124	.124	.106	.106	.106	.072	.072	.072	.042	.042	.042	.013	.013	.013	
1.0	.111	.103	.095	.095	.088	.082	.065	.061	.057	.037	.035	.033	.012	.011	.011	
2.0	.100	.086	.075	.086	.074	.065	.059	.052	.045	.034	.030	.027	.011	.010	.009	
3.0	.091	.074	.060	.078	.064	.052	.054	.044	.037	.031	.026	.022	.010	.008	.007	
4.0	.084	.064	.049	.072	.055	.043	.049	.039	.030	.029	.023	.018	.009	.007	.006	
5.0	.077	.056	.041	.066	.049	.036	.046	.034	.025	.026	.020	.015	.009	.007	.005	
6.0	.072	.050	.034	.062	.043	.030	.043	.030	.021	.025	.018	.013	.008	.006	.004	
7.0	.067	.045	.029	.058	.039	.025	.040	.027	.018	.023	.016	.011	.008	.005	.004	
8.0	.063	.041	.025	.055	.035	.022	.038	.025	.016	.022	.015	.009	.007	.005	.003	
9.0	.060	.037	.022	.052	.032	.019	.036	.023	.014	.021	.013	.008	.007	.004	.003	
10.0	.057	.034	.019	.049	.030	.017	.034	.021	.012	.020	.012	.007	.006	.004	.002	

C Range: 0 - 360DEG

C Interval:For a lens beam angle of 24°

Test Speed: HIGH

Temperature:77.54 °F

Operators:zoe

Test Date:2023-12-28

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity:65.0%

Test Distance:124.409" [K=1.0000]

Remarks: LAMP:BXRV-DR-1830G-100Z-A-23 Ra:90

LENS:PM-1103A 24R+DIFFUSER

DRIVER:PUP10A-1WMC-700 500mA

30minutes warm-up

UGR(Unified Glare Rating) Table

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm											
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS					TYPE:			WEIGHT:			
SPEC.: 3000K					DIM.:			SERIAL No.: 2312281383			
MFR.: MERCURY LIGHTING					SUR.: 0.002601m2			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	2H	15.4	16.2	15.6	16.3	16.5	15.3	16.1	15.5	16.3	16.4
	3H	15.4	16.1	15.6	16.3	16.5	15.3	16.0	15.5	16.2	16.4
	4H	15.3	16.0	15.6	16.2	16.4	15.2	15.9	15.5	16.1	16.3
	6H	15.2	15.9	15.5	16.1	16.4	15.1	15.8	15.4	16.0	16.3
	8H	15.2	15.8	15.5	16.1	16.4	15.1	15.7	15.4	16.0	16.3
	12H	15.2	15.8	15.5	16.1	16.3	15.1	15.7	15.4	16.0	16.2
4H	2H	15.3	16.0	15.5	16.2	16.4	15.2	15.9	15.5	16.1	16.3
	3H	15.3	15.9	15.6	16.1	16.4	15.2	15.8	15.5	16.0	16.3
	4H	15.2	15.8	15.6	16.1	16.4	15.1	15.7	15.5	16.0	16.3
	6H	15.2	15.7	15.5	16.0	16.3	15.1	15.6	15.4	15.9	16.2
	8H	15.1	15.6	15.5	16.0	16.3	15.0	15.5	15.4	15.9	16.2
	12H	15.1	15.6	15.5	15.9	16.3	15.0	15.4	15.4	15.8	16.2
8H	4H	15.1	15.6	15.5	15.9	16.3	15.0	15.5	15.4	15.8	16.2
	6H	15.1	15.4	15.5	15.8	16.3	15.0	15.4	15.4	15.7	16.2
	8H	15.1	15.4	15.5	15.8	16.3	15.0	15.3	15.4	15.7	16.1
	12H	15.1	15.4	15.5	15.8	16.3	15.0	15.2	15.4	15.7	16.2
12H	4H	15.1	15.5	15.5	15.9	16.2	15.0	15.4	15.4	15.8	16.1
	6H	15.0	15.4	15.5	15.8	16.2	14.9	15.3	15.4	15.7	16.1
	8H	15.0	15.3	15.5	15.8	16.2	14.9	15.2	15.4	15.7	16.1
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 2.4 / - 4.6					+ 2.5 / - 4.9					
1.5H	+ 3.7 / - 3.2					+ 3.8 / - 3.7					
2.0H	+ 3.7 / - 3.3					+ 4.2 / - 3.3					

CIE Pub.117, 889.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)  
 Area: 0.002601 m2

C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: For a lens beam angle of 24°	γ Interval: 1.0DEG
Test Speed: HIGH	Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.461
Temperature: 77.54 °F	Humidity: 65.0%
Operators: zoe	Test Distance: 124.409" [K=1.0000]
Test Date: 2023-12-28	Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90
	LENS: PM-1103A 24R+DIFFUSER
	DRIVER: PUP10A-1WMC-700 500mA
	30minutes warm-up



## UTILIZATION FACTORS TABLE

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:

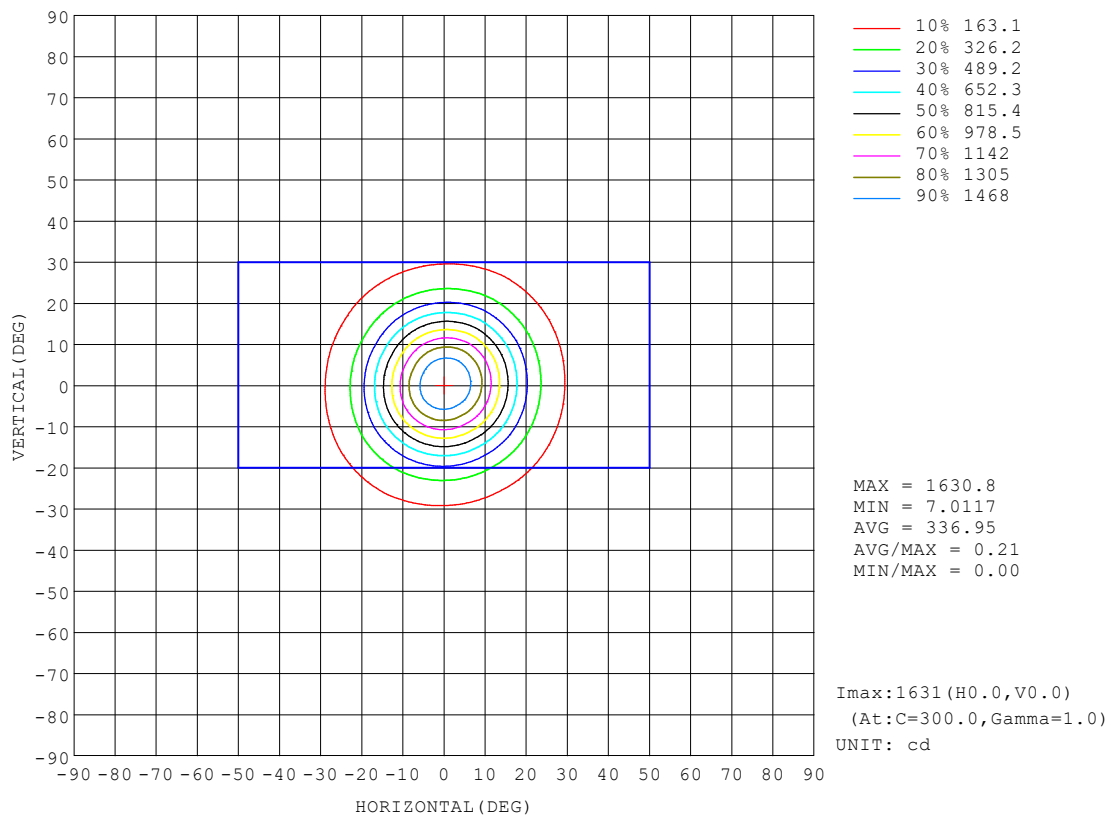
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	53	51	57	53	51	56	53	51	48
0.80	62	58	56	62	58	56	61	58	56	53
1.00	65	61	59	64	61	59	63	61	58	56
1.25	67	64	62	67	64	62	66	63	61	58
1.50	69	66	64	68	66	64	67	65	63	60
2.00	71	68	66	70	68	66	68	66	65	61
2.50	72	70	68	71	69	67	69	67	66	62
3.00	73	71	69	72	70	68	70	68	67	63
4.00	74	73	71	73	71	70	71	69	68	64
5.00	75	74	72	74	72	71	71	70	69	64
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54 °F  
 Operators: zoe  
 Test Date: 2023-12-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

## ISOCANDELA DIAGRAM

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:

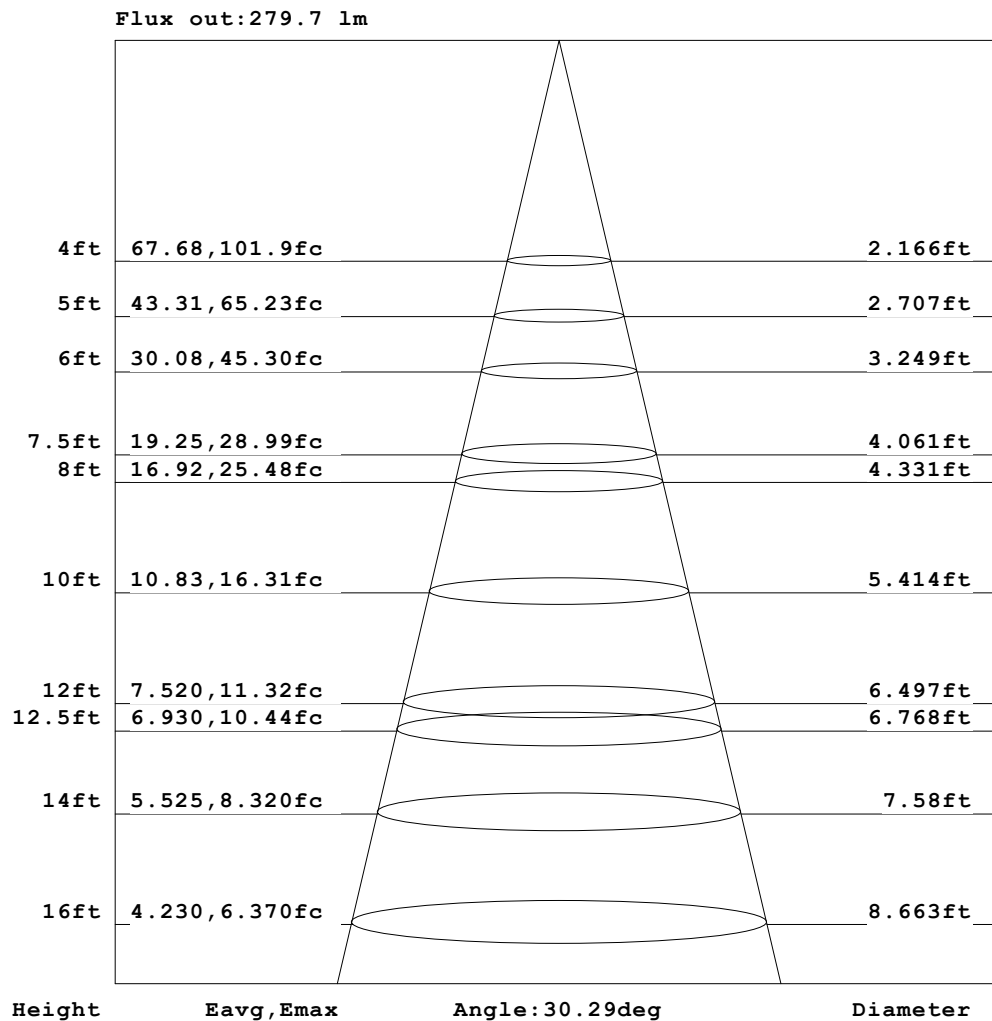


C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54 °F  
 Operators: zoe  
 Test Date: 2023-12-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

**AAI Figure**

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:



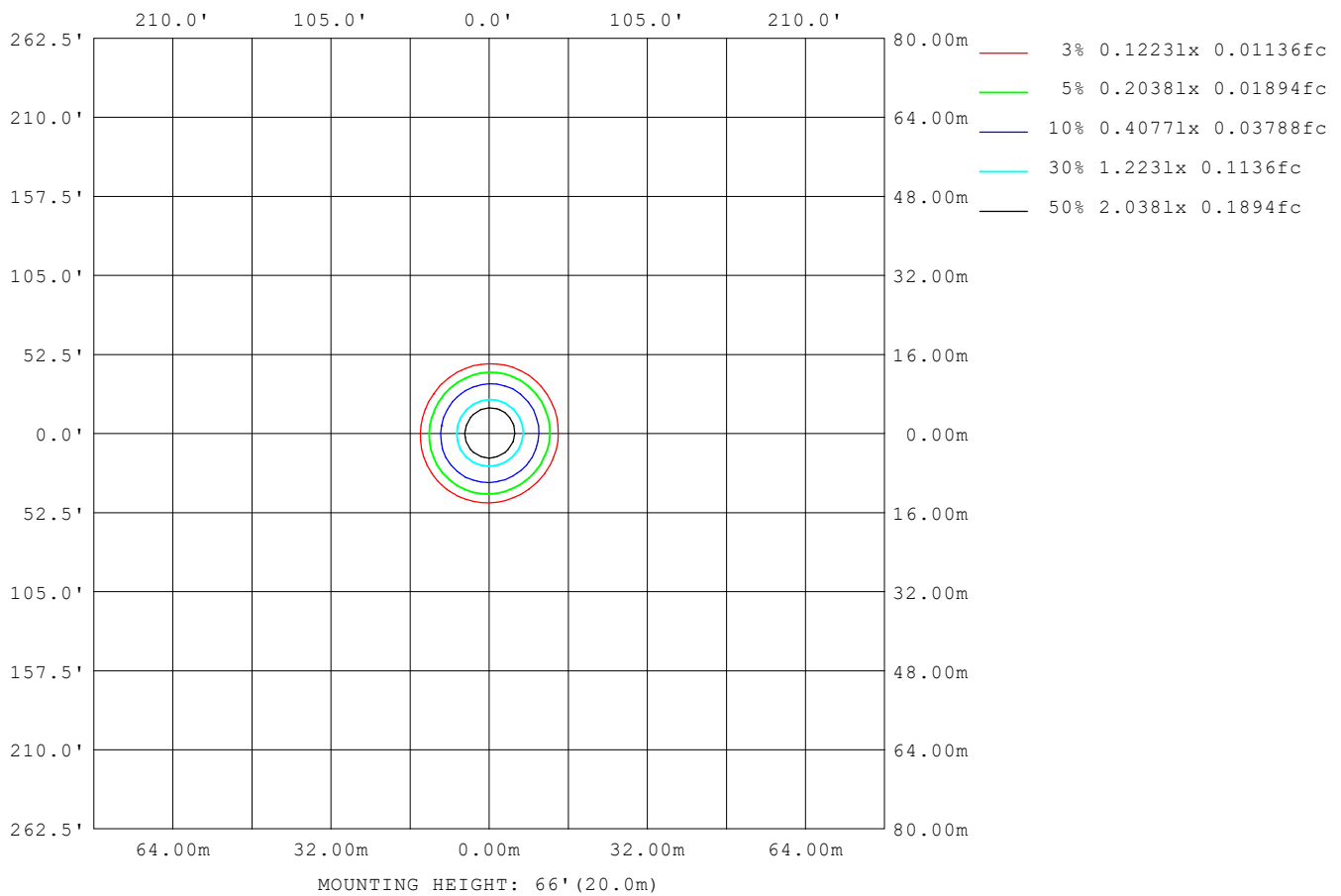
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54 °F  
 Operators: zoe  
 Test Date: 2023-12-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra:90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

**ISOLUX DIAGRAM**

<b>Test:</b> U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz <b>Lamp Flux:</b> 889.25x1 lm		
<b>NAME:</b> CTL-MM-1.5-DM-24-SQ-AD-OPS	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>SPEC.:</b> 3000K	<b>DIM.:</b>	<b>SERIAL No.:</b> 2312281383
<b>MFR.:</b> MERCURY LIGHTING	<b>SUR.:</b> 0.002601m2	<b>Shielding Angle:</b>



**C Range:** 0 - 360DEG  
**C Interval:** For a lens beam angle of 24°  
**Test Speed:** HIGH  
**Temperature:** 77.54 °F  
**Operators:** zoe  
**Test Date:** 2023-12-28

**γ Range:** 0 - 180DEG  
**γ Interval:** 1.0DEG  
**Test System:** EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
**Humidity:** 65.0%  
**Test Distance:** 124.409" [K=1.0000]  
**Remarks:** LAMP: BXRV-DR-1830G-100Z-A-23 Ra:90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

### LED Avg.L Report

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:

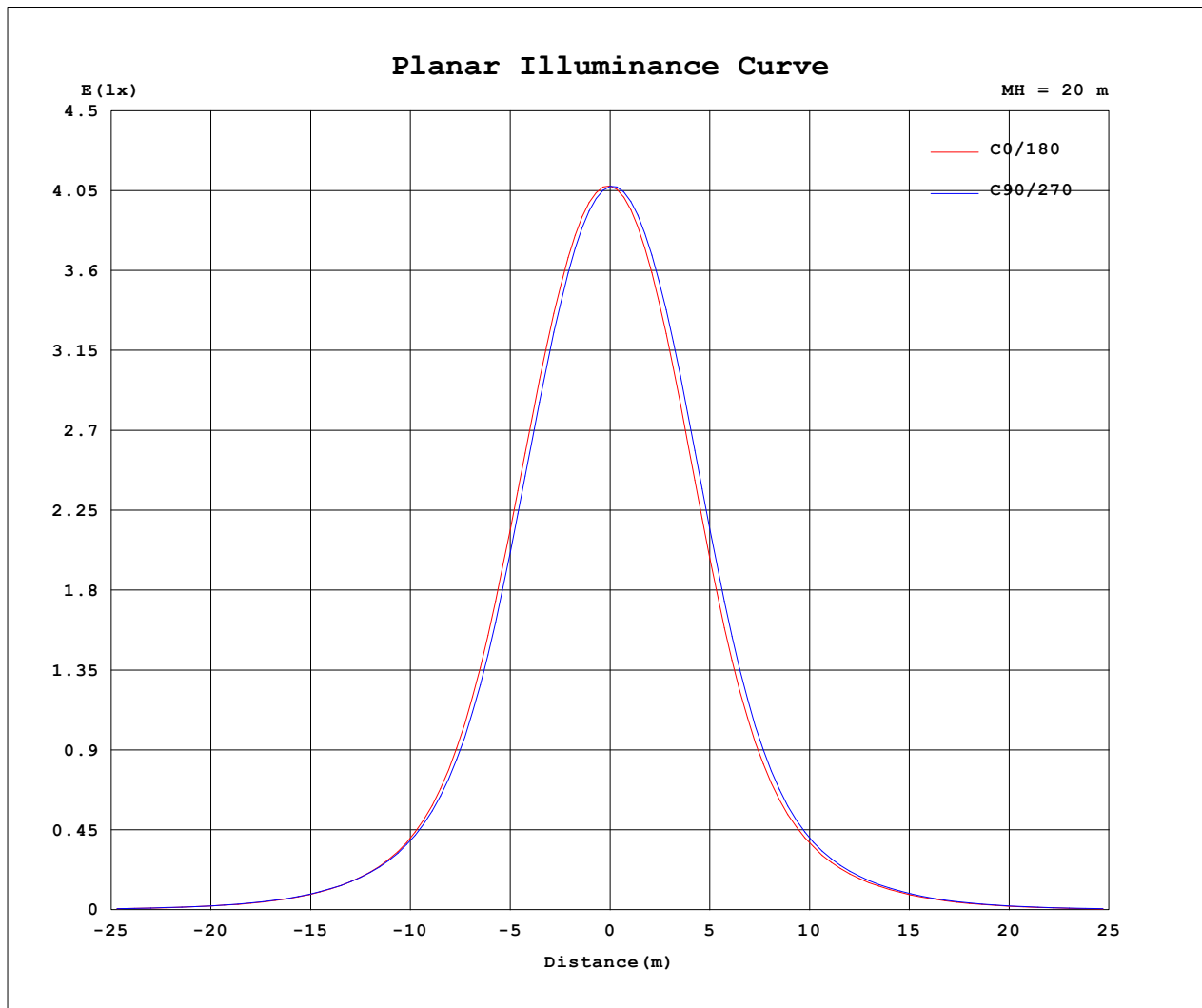
AvgL	cd/m2
L 0~180 (65) av	2465
L 0~180 (75) av	1211
L 0~180 (85) av	1720
L 90~270 (65) av	2479
L 90~270 (75) av	1222
L 90~270 (85) av	1737
L 45 (65) av	3067
L 45 (75) av	1519
L 45 (85) av	1815

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54 °F  
 Operators: zoe  
 Test Date: 2023-12-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: For a lens beam angle of 24°  
Test Speed: HIGH  
Temperature: 77.54 °F  
Operators: zoe  
Test Date: 2023-12-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 124.409" [K=1.0000]  
Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90  
LENS: PM-1103A 24R+DIFFUSER  
DRIVER: PUP10A-1WMC-700 500mA  
30minutes warm-up

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:120.32V I:0.0953A P:11.342W PF:0.9874 Freq:59.98Hz Lamp Flux:889.25x1 lm		
NAME: CTL-MM-1.5-DM-24-SQ-AD-OPS	TYPE:	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2312281383
MFR.: MERCURY LIGHTING	SUR.: 0.002601m2	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	1630	1630	1630	1630	1630	1630	1630	1630	1630	1630	1630	1630						
5	1537	1523	1506	1507	1510	1513	1508	1508	1529	1542	1552	1546						
10	1250	1222	1194	1198	1203	1205	1193	1191	1228	1259	1283	1273						
15	862	836	804	806	808	806	792	790	830	862	892	883						
20	505	487	464	469	475	472	455	449	476	500	526	521						
25	274	263	253	261	270	266	252	245	258	273	289	285						
30	152	147	143	150	157	154	144	141	147	155	163	160						
35	87.2	84.8	84.0	87.4	92.6	90.6	84.4	83.2	86.4	90.7	94.4	90.8						
40	47.8	47.2	47.1	49.4	53.6	52.3	46.8	46.9	48.4	49.7	53.2	50.6						
45	26.2	27.3	27.0	27.1	31.6	30.2	25.0	27.1	27.4	26.6	31.1	29.4						
50	14.1	16.5	15.9	13.8	18.6	17.3	12.5	16.0	15.8	13.5	18.4	17.3						
55	7.10	9.68	8.54	6.65	10.00	8.62	6.17	8.73	8.25	6.61	10.1	9.39						
60	4.42	5.46	4.95	4.30	5.26	4.86	4.07	4.87	4.78	4.22	5.36	5.13						
65	2.86	3.50	3.35	2.80	3.39	3.21	2.56	3.09	3.08	2.65	3.42	3.35						
70	1.68	2.11	2.04	1.58	2.01	1.88	1.31	1.76	1.74	1.39	1.99	2.00						
75	0.92	1.13	1.08	0.87	1.01	0.92	0.71	0.88	0.89	0.78	1.03	1.06						
80	0.58	0.67	0.63	0.53	0.59	0.54	0.46	0.52	0.54	0.51	0.61	0.63						
85	0.45	0.47	0.45	0.41	0.40	0.37	0.33	0.34	0.38	0.38	0.42	0.46						
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
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						
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						
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						
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						
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						
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						
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						
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						

C Range: 0 - 360DEG

C Interval: For a lens beam angle of 24°

Test Speed: HIGH

Temperature: 77.54 °F

Operators: zoe

Test Date: 2023-12-28

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity: 65.0%

Test Distance: 124.409" [K=1.0000]

Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90

LENS: PM-1103A 24R+DIFFUSER

DRIVER: PUP10A-1WMC-700 500mA

30minutes warm-up