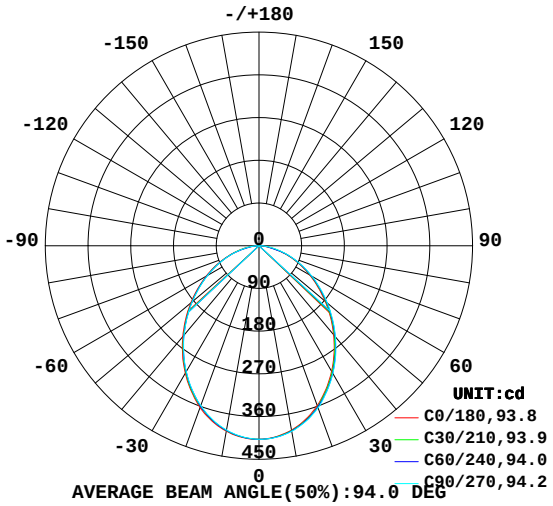
LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

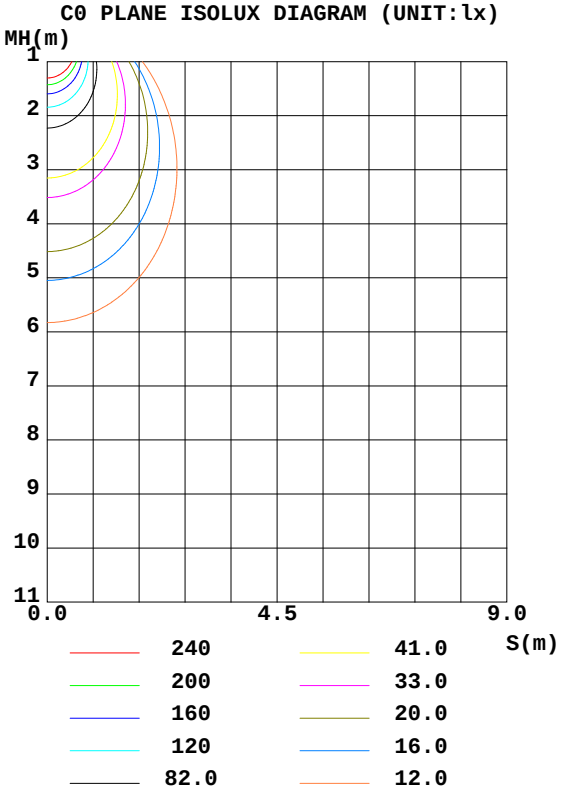
DATA OF LAMP		PHOTOMETRIC DATA Eff: 116.47 lm/W			
MODEL	DL121-3-8W-P3	Imax(cd)	407.9	S/MH(C0/180)	1.15
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	1.13
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	943.40	η UP,DN(C0-180)	0.0,50.2
NOMINAL FLUX(lm)	943.405	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.1	η down(%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):94.0 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-06-23

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	394.4	395.8	396.9	396.7	396.7	395.3	394.3	394.2	0- 10	38.34	38.34	4.06,4.06
20	358.5	361.5	363.6	363.3	363.2	360.4	358.7	358.5	10- 20	107.2	145.5	15.4,15.4
30	305.7	309.1	311.2	311.7	310.5	307.7	306.3	305.8	20- 30	154.6	300.1	31.8,31.8
40	244.5	248.2	250.7	251.1	249.8	246.8	245.6	245.0	30- 40	174.2	474.3	50.3,50.3
50	182.3	185.7	188.2	188.4	187.6	184.7	183.6	182.9	40- 50	166.9	641.2	68,68
60	123.4	126.6	128.9	128.8	128.6	126.0	124.9	124.5	50- 60	138.9	780.1	82.7,82.7
70	70.94	73.44	75.19	75.19	75.52	73.43	72.60	72.35	60- 70	98.38	878.5	93.1,93.1
80	25.41	24.79	30.16	26.32	31.02	27.14	29.04	24.93	70- 80	52.11	930.6	98.6,98.6
90	0.8676	0.3920	0.0598	0.0688	0.1855	0.1975	0.1974	0.4218	80- 90	12.80	943.4	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 560.12 lm

%lum = 59.4%
%lamp = 59.4%

Conical surface Flux(120deg): 780.11 lm

%lum = 82.7%
%lamp = 82.7%

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Operators:
Test Date:2023-06-23

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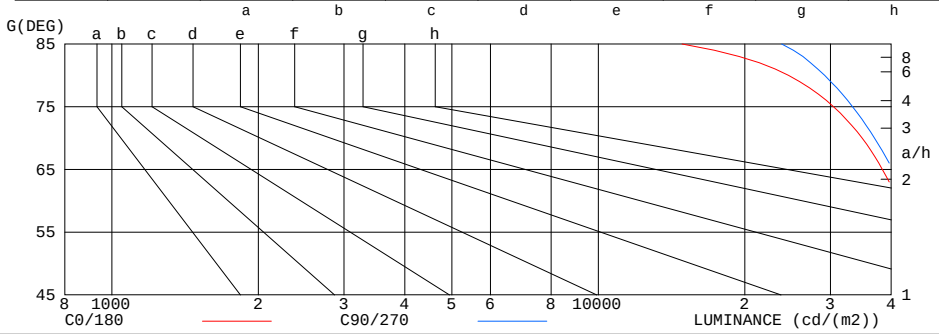
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	14866	23819
80	24593	29198
75	30439	33300
70	34863	36961
65	38340	40250
60	41492	43334
55	44489	46294
50	47656	49231
45	50651	52155

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Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
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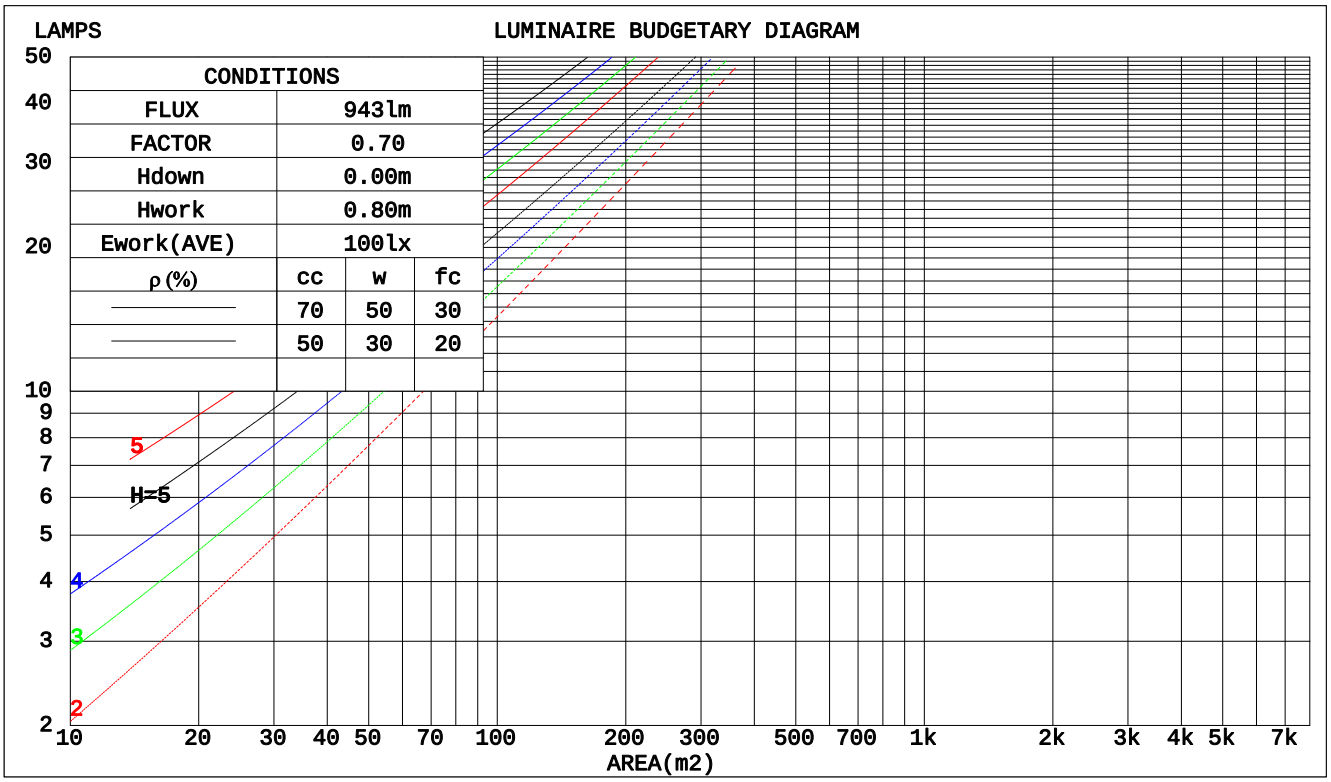
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.05	1.01	.97	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.86	.81	.90	.85	.80	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.69	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5.0	.66	.57	.51	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.51	.44	.58	.50	.44	.57	.49	.44	.55	.48	.44	.53	.48	.43	.41
7.0	.54	.46	.40	.53	.45	.39	.52	.44	.39	.50	.44	.39	.49	.43	.39	.37
8.0	.49	.41	.36	.49	.41	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
9.0	.46	.38	.32	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.30
10.0	.42	.34	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27



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Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
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Remarks:

WEC AND CCEC

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NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.288	.164	.052	.281	.160	.051	.268	.154	.049	.256	.147	.047	.244	.142	.046	
2.0	.273	.150	.046	.267	.147	.045	.256	.142	.044	.245	.137	.043	.235	.133	.042	
3.0	.255	.136	.041	.249	.134	.040	.239	.130	.039	.230	.126	.039	.221	.122	.038	
4.0	.236	.123	.036	.232	.121	.036	.223	.118	.035	.214	.115	.035	.207	.112	.034	
5.0	.220	.112	.032	.215	.111	.032	.207	.108	.032	.200	.106	.031	.193	.103	.031	
6.0	.205	.103	.029	.201	.101	.029	.194	.099	.029	.187	.097	.029	.181	.095	.028	
7.0	.191	.094	.027	.188	.094	.027	.181	.092	.026	.175	.090	.026	.170	.088	.026	
8.0	.179	.087	.025	.176	.087	.024	.170	.085	.024	.165	.084	.024	.160	.082	.024	
9.0	.168	.081	.023	.166	.081	.023	.160	.079	.022	.156	.078	.022	.151	.077	.022	
10.0	.159	.076	.021	.156	.075	.021	.152	.074	.021	.147	.073	.021	.143	.072	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.060	.057	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.138	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.126	.078	.042	.087	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.132	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.126	.069	.030	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.120	.064	.026	.104	.055	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.036	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-06-23

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	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	25.8	27.2	26.1	27.4	27.6	25.9	27.4	26.2	27.6	27.8
	3H	27.0	28.4	27.3	28.6	28.8	27.2	28.5	27.5	28.8	29.0
	4H	27.5	28.7	27.8	29.0	29.2	27.7	29.0	28.0	29.2	29.5
	6H	27.7	28.9	28.1	29.2	29.5	28.0	29.2	28.3	29.5	29.7
	8H	27.8	29.0	28.1	29.2	29.5	28.1	29.2	28.4	29.5	29.8
	12H	27.8	28.9	28.2	29.2	29.5	28.1	29.3	28.5	29.5	29.8
4H	2H	26.3	27.6	26.6	27.8	28.1	26.4	27.7	26.7	27.9	28.2
	3H	27.7	28.8	28.1	29.1	29.4	27.9	29.0	28.2	29.3	29.6
	4H	28.3	29.3	28.7	29.6	30.0	28.5	29.5	28.8	29.8	30.1
	6H	28.7	29.6	29.1	29.9	30.3	28.9	29.8	29.3	30.1	30.5
	8H	28.8	29.6	29.2	30.0	30.4	29.0	29.8	29.4	30.2	30.6
	12H	28.8	29.6	29.2	30.0	30.4	29.1	29.9	29.5	30.2	30.6
8H	4H	28.5	29.3	28.9	29.7	30.1	28.6	29.5	29.0	29.8	30.2
	6H	29.0	29.7	29.4	30.1	30.5	29.1	29.8	29.6	30.2	30.6
	8H	29.2	29.8	29.6	30.2	30.6	29.3	29.9	29.8	30.4	30.8
	12H	29.2	29.8	29.7	30.2	30.7	29.5	30.0	30.0	30.5	30.9
12H	4H	28.5	29.3	28.9	29.6	30.0	28.6	29.4	29.1	29.8	30.2
	6H	29.0	29.6	29.5	30.1	30.5	29.1	29.8	29.6	30.2	30.6
	8H	29.2	29.7	29.7	30.2	30.7	29.4	29.9	29.9	30.3	30.8

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.2 / - 0.3	+ 0.2 / - 0.3
1.5H	+ 0.1 / - 0.3	+ 0.1 / - 0.3
2.0H	+ 0.3 / - 0.4	+ 0.3 / - 0.3

CIE Pub.117, 943.4 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -0.2)
Area: 0.00595 m2

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Temperature:25.3DEG
Operators:
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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	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) x RCR = 5									
k = 0.60	61	50	43	60	50	43	59	49	43	37
0.80	71	60	53	70	59	53	68	59	52	46
1.00	79	69	62	78	68	61	76	69	61	54
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	81	75	89	80	74	86	79	73	66
2.00	97	89	83	95	88	82	92	86	81	73
2.50	101	93	88	99	92	87	95	89	85	77
3.00	104	97	92	102	96	91	98	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

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Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

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SPEC.: 5700K	DIM.:	SERIAL No.: 1
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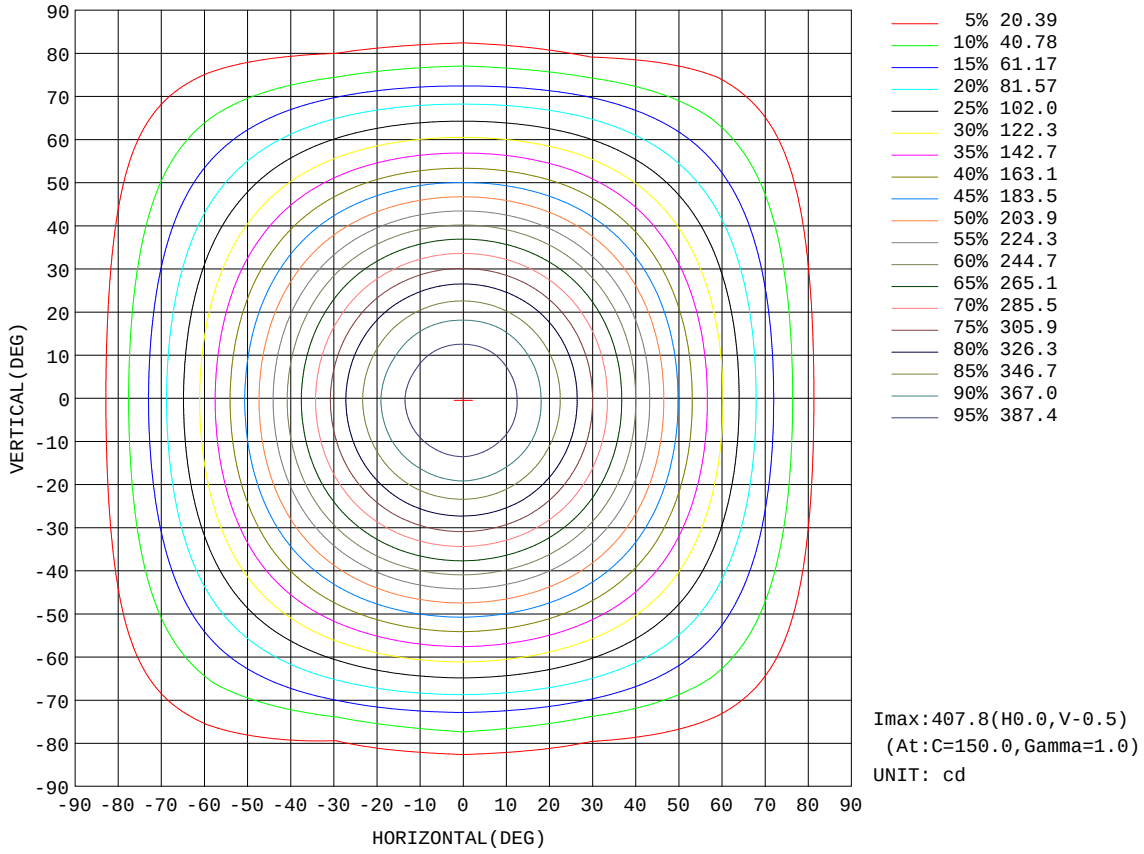

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Remarks:

AAI Figure

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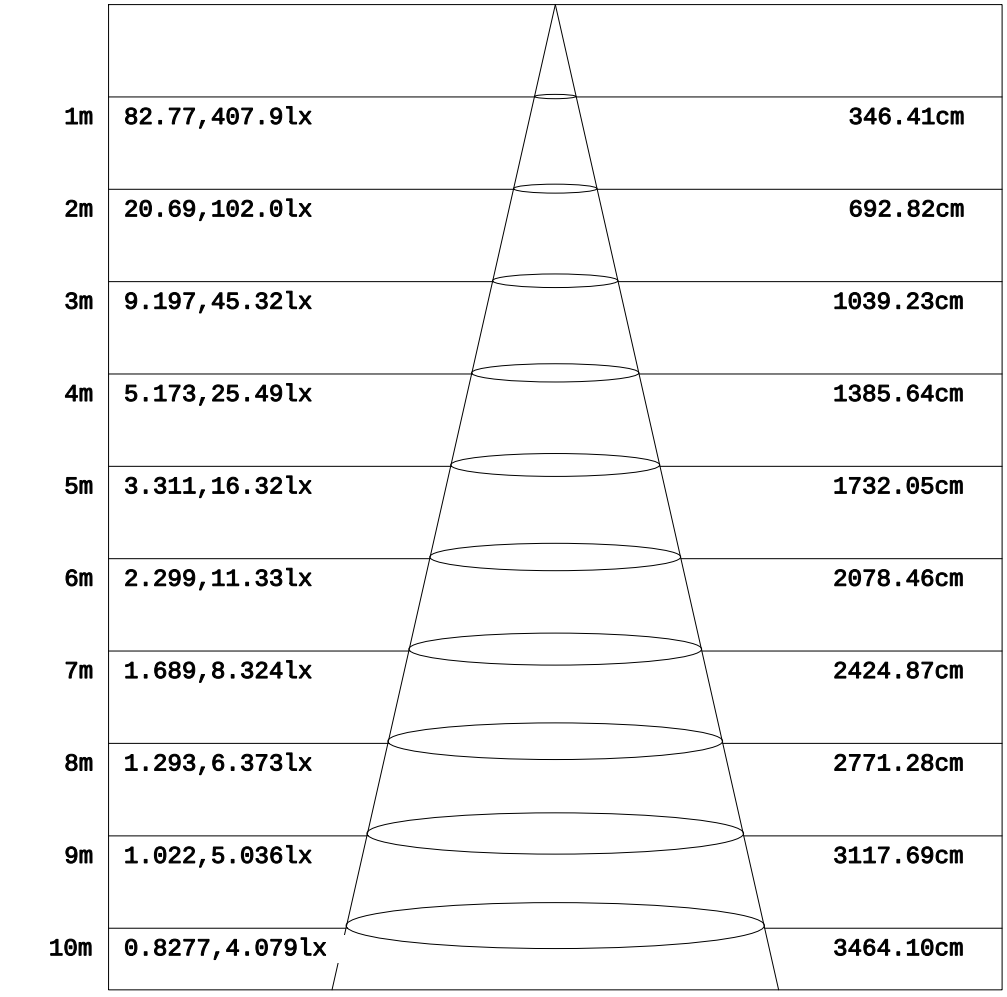
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

Flux out:780.1 lm



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

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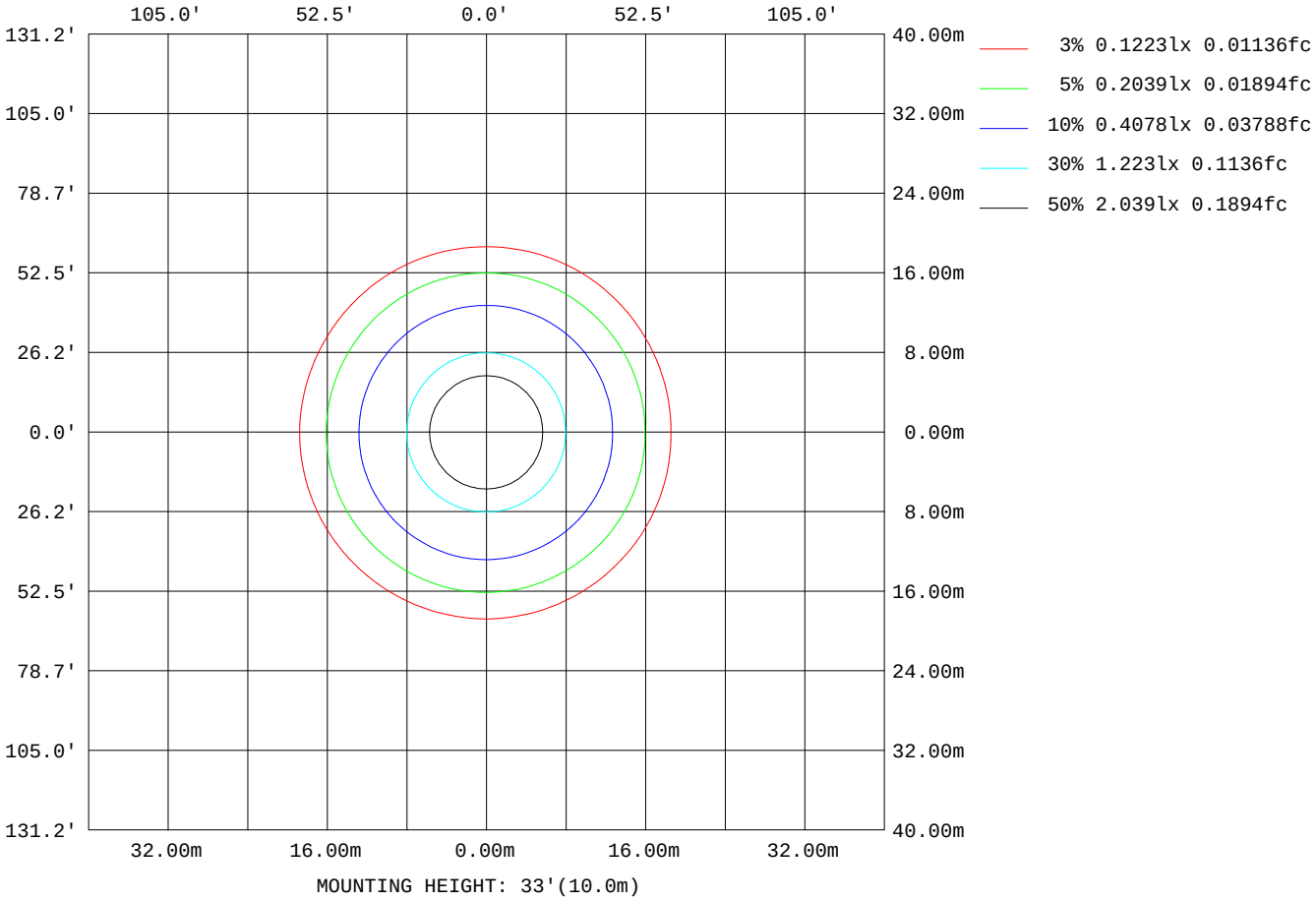
ISOLUX DIAGRAM

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-06-23

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

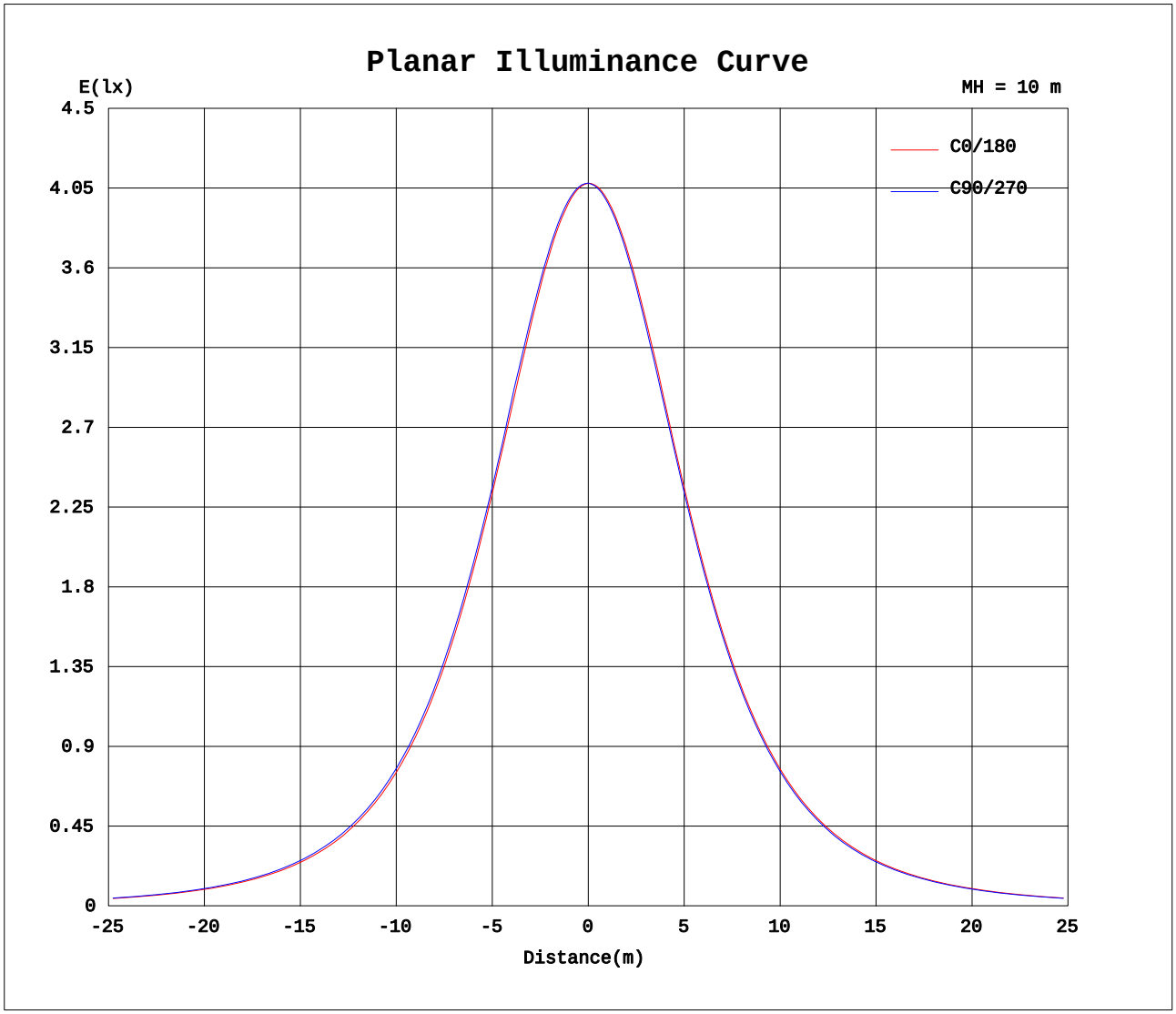
AvgL	cd/m2
L_0~180(65)av	39290
L_0~180(75)av	32084
L_0~180(85)av	20057
L_90~270(65)av	39574
L_90~270(75)av	32690
L_90~270(85)av	23267
L_45(65)av	39446
L_45(75)av	31633
L_45(85)av	21126

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-06-23

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-06-23

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.10V I:0.0350A P:8.1000W PF:0.9430 Freq:50.00Hz Lamp Flux:943.405x1 lm		
NAME: DL121-3-8W-P3	TYPE: 8W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.00595	Shielding Angle:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	30	60	90	120	150	180	210	240	270	300	330
0	408	408	408	408	408	408	408	408	408	408	408	408
5	404	405	405	405	405	405	405	405	405	404	404	404
10	394	395	396	397	397	397	397	395	395	394	395	394
15	379	381	382	383	383	383	383	380	380	379	379	379
20	358	361	362	364	363	364	363	360	360	359	359	358
25	334	336	338	338	339	339	338	336	335	334	334	334
30	306	308	310	311	312	311	311	308	307	306	306	306
35	276	278	280	282	282	282	281	278	277	277	276	276
40	245	247	249	251	251	251	250	247	246	246	245	245
45	213	216	218	219	220	219	219	216	215	214	214	213
50	182	185	187	188	188	188	188	185	184	184	183	182
55	152	155	156	158	158	158	157	155	154	153	154	152
60	123	126	127	129	129	129	129	126	126	125	125	124
65	96.4	98.7	99.8	101	101	101	101	99.0	98.7	97.9	98.2	96.9
70	70.9	72.9	74.0	75.2	74.9	75.5	75.5	73.6	73.3	72.6	73.0	71.7
75	46.9	48.8	46.8	51.3	47.4	51.8	51.9	50.3	48.5	49.4	48.7	48.5
80	25.4	27.0	22.6	30.2	21.9	30.7	31.0	29.8	24.5	29.0	21.9	27.9
85	7.71	9.63	10.8	12.3	10.8	12.7	13.1	12.3	10.7	11.8	10.5	10.5
90	0.87	0.62	0.16	0.06	0.07	0.07	0.19	0.22	0.18	0.20	0.26	0.58

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-06-23

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks: