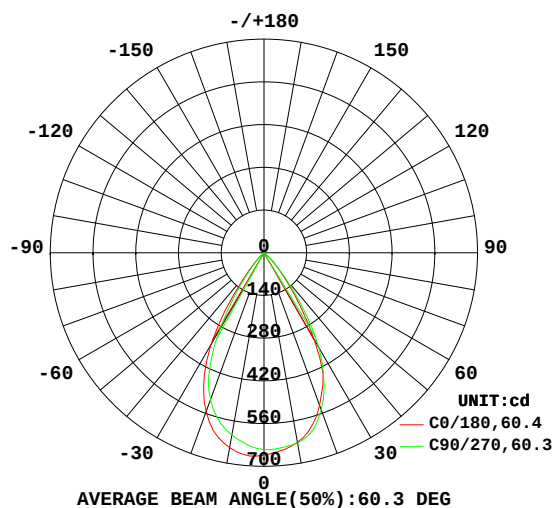


LUMINAIRE PHOTOMETRIC TEST REPORT

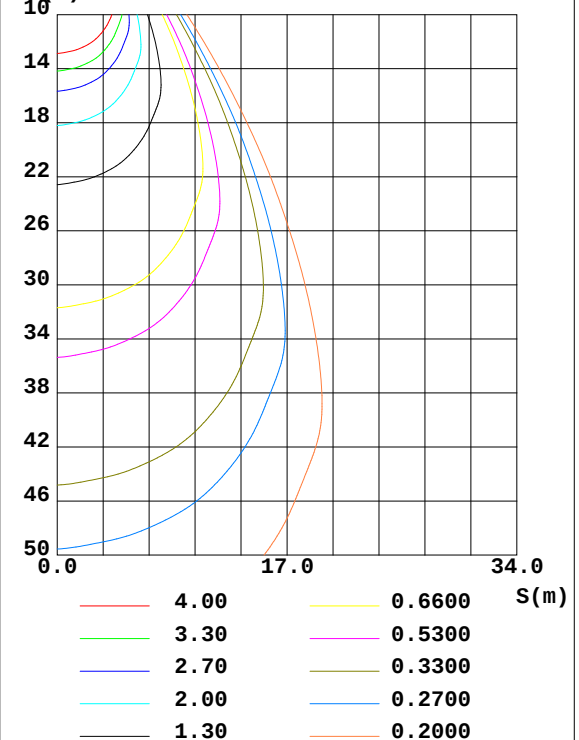
Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.65 lm/W			
MODEL	2835 16 3000K	I _{max} (cd)	667.7	S/MH(C0/180)	0.90
NOMINAL POWER(W)	10W	LOR(%)	100.0	S/MH(C90/270)	0.85
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	587.70	η UP, DN(C0-180)	0.4, 52.3
NOMINAL FLUX(lm)	587.698	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.3, 47.0
LAMPS INSIDE	1	η up(%)	0.7	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)		η down(%)	99.3	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.250m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

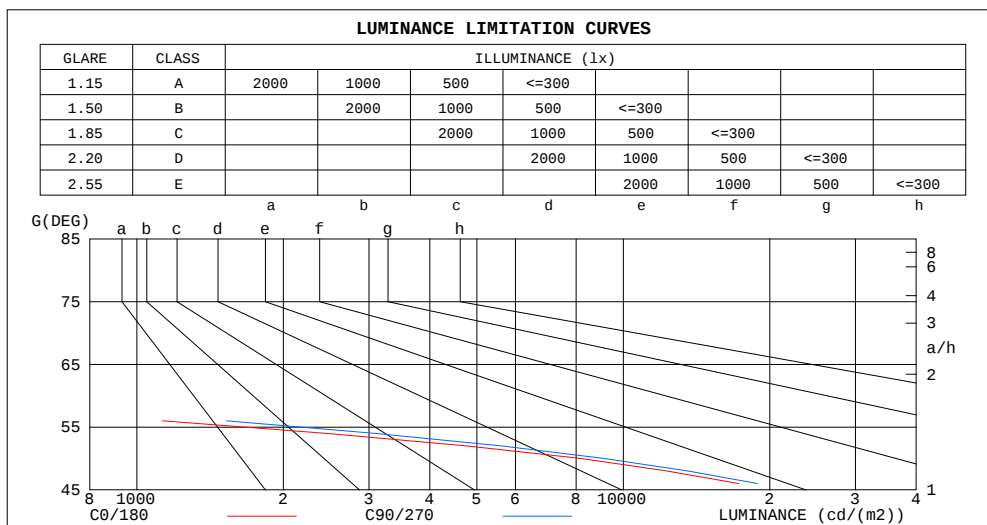
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	630.9	620.5	632.7	628.2	648.8	635.3	606.8	602.8	0- 10	60.87	60.87	10.4,10.4
20	533.2	546.5	547.8	545.2	554.8	519.5	512.4	502.3	10- 20	165.1	225.9	38.4,38.4
30	331.3	348.4	361.6	343.2	348.3	303.4	286.7	306.2	20- 30	202.6	428.6	72.9,72.9
40	97.49	111.7	111.4	98.59	78.48	59.75	62.90	73.84	30- 40	121.2	549.7	93.5,93.5
50	16.38	20.58	18.27	12.24	7.354	4.852	5.637	10.15	40- 50	30.52	580.3	98.7,98.7
60	0.2404	0.4807	0.4533	0.1421	0.0327	0.0332	0	0.0487	50- 60	3.128	583.4	99.3,99.3
70	0.0110	0	0.0220	0	0	0	0	0	60- 70	0.0325	583.4	99.3,99.3
80	0	0	0	0	0	0	0	0	70- 80	0.0008	583.4	99.3,99.3
90	0	0	0	0.0000	0	0	0	0	80- 90	0.0000	583.4	99.3,99.3
100	0.0657	0.0806	0.0364	0.0879	0.0147	0	0.0147	0	90-100	0.0115	583.4	99.3,99.3
110	0.3323	0.3220	0.2703	0.3256	0.1391	0.1132	0.1428	0.0839	100-110	0.1203	583.5	99.3,99.3
120	0.7344	0.7023	0.6429	0.6949	0.3769	0.3653	0.3915	0.3251	110-120	0.3596	583.9	99.4,99.4
130	1.173	1.137	1.082	1.101	0.7244	0.7198	0.7353	0.6723	120-130	0.6423	584.5	99.5,99.5
140	1.561	1.507	1.444	1.466	1.112	1.093	1.105	1.020	130-140	0.8514	585.4	99.6,99.6
150	1.820	1.781	1.736	1.729	1.422	1.378	1.382	1.290	140-150	0.9013	586.3	99.8,99.8
160	1.879	1.839	1.817	1.784	1.594	1.532	1.525	1.415	150-160	0.7554	587.1	99.9,99.9
170	1.792	1.780	1.744	1.737	1.722	1.645	1.620	1.506	160-170	0.4782	587.5	100,100
180	1.784	1.813	1.700	1.711	1.806	1.791	1.729	1.700	170-180	0.1637	587.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:



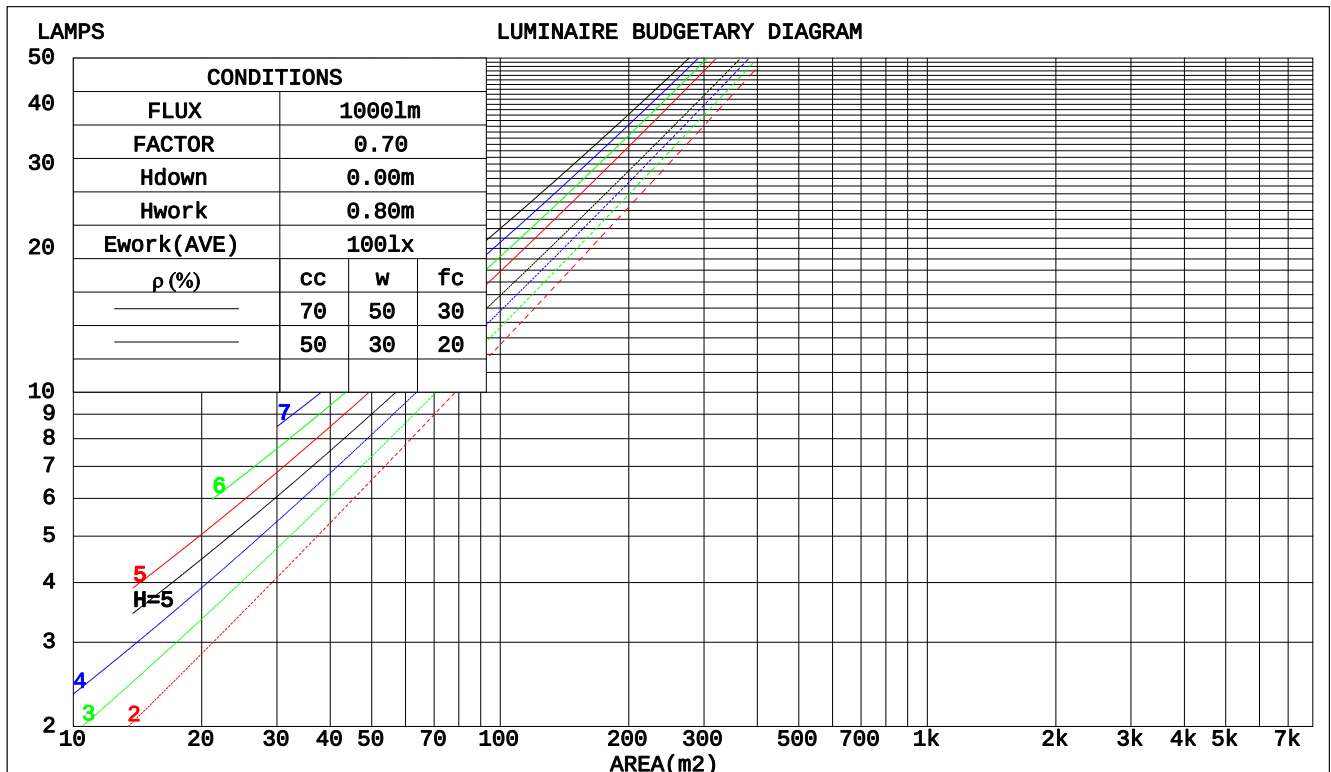
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.250m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm									
NAME: DL9455 BK TC					TYPE:			WEIGHT:	
SPEC.: 10W					DIM.:			SERIAL No.:	
MFR.:					SUR.: 63mm			Shielding Angle:	

ρ_{CC}	80%			70%			50%			30%			10%			0	
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.175	.100	.032	.168	.096	.030	.155	.089	.028	.143	.083	.027	.132	.077	.025		
2.0	.168	.092	.028	.162	.089	.027	.151	.084	.026	.141	.079	.025	.131	.074	.023		
3.0	.160	.085	.026	.155	.083	.025	.146	.079	.024	.137	.075	.023	.129	.071	.022		
4.0	.153	.079	.023	.148	.078	.023	.140	.074	.022	.133	.071	.022	.126	.068	.021		
5.0	.146	.074	.022	.142	.073	.021	.135	.070	.021	.128	.068	.020	.122	.065	.020		
6.0	.140	.070	.020	.136	.069	.020	.130	.067	.019	.124	.065	.019	.119	.062	.019		
7.0	.134	.066	.019	.131	.065	.019	.125	.063	.018	.120	.061	.018	.115	.060	.018		
8.0	.128	.063	.018	.125	.062	.017	.120	.060	.017	.116	.059	.017	.111	.057	.017		
9.0	.123	.059	.017	.121	.059	.016	.116	.057	.016	.112	.056	.016	.108	.055	.016		
10.0	.118	.057	.016	.116	.056	.016	.112	.055	.015	.108	.054	.015	.104	.053	.015		

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.196	.196	.196	.168	.168	.168	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.177	.163	.151	.151	.140	.130	.103	.096	.090	.059	.056	.052	.019	.018	.017	
2.0	.161	.138	.119	.138	.119	.103	.095	.082	.072	.055	.048	.042	.018	.015	.014	
3.0	.149	.119	.096	.128	.103	.083	.088	.071	.058	.051	.042	.034	.016	.014	.011	
4.0	.139	.105	.078	.119	.090	.068	.082	.063	.048	.047	.037	.028	.015	.012	.009	
5.0	.130	.093	.065	.112	.080	.057	.077	.056	.040	.045	.033	.024	.014	.011	.008	
6.0	.123	.084	.056	.106	.072	.048	.073	.051	.034	.042	.030	.020	.014	.010	.007	
7.0	.117	.076	.048	.100	.066	.042	.069	.046	.030	.040	.027	.018	.013	.009	.006	
8.0	.111	.070	.042	.096	.061	.036	.066	.043	.026	.038	.025	.015	.012	.008	.005	
9.0	.106	.065	.037	.091	.056	.032	.063	.040	.023	.037	.023	.014	.012	.008	.005	
10.0	.102	.060	.033	.088	.052	.029	.061	.037	.021	.035	.022	.012	.011	.007	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm											
NAME: DL9455 BK TC					TYPE:			WEIGHT:			
SPEC.: 10W					DIM.:			SERIAL No.:			
MFR.:					SUR.: 63mm			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	20.9	21.9	21.2	22.1	22.2	21.5	22.4	21.7	22.6	22.8
	3H	20.8	21.6	21.0	21.8	22.0	21.3	22.2	21.6	22.4	22.6
	4H	20.7	21.5	21.0	21.7	22.0	21.2	22.1	21.5	22.3	22.5
	6H	20.6	21.3	20.9	21.6	21.9	21.2	21.9	21.5	22.2	22.4
	8H	20.5	21.3	20.9	21.5	21.8	21.1	21.8	21.4	22.1	22.4
	12H	20.5	21.2	20.8	21.5	21.8	21.1	21.8	21.4	22.0	22.3
4H	2H	20.7	21.5	21.0	21.7	22.0	21.2	22.1	21.5	22.3	22.5
	3H	20.5	21.2	20.8	21.5	21.8	21.1	21.8	21.4	22.0	22.3
	4H	20.4	21.0	20.8	21.3	21.7	21.0	21.6	21.3	21.9	22.2
	6H	20.3	20.9	20.7	21.2	21.6	20.9	21.4	21.3	21.8	22.1
	8H	20.3	20.8	20.7	21.1	21.5	20.8	21.3	21.2	21.7	22.1
	12H	20.2	20.7	20.6	21.0	21.5	20.8	21.2	21.2	21.6	22.0
8H	4H	20.3	20.8	20.7	21.1	21.5	20.8	21.3	21.2	21.7	22.1
	6H	20.1	20.6	20.6	21.0	21.4	20.7	21.1	21.2	21.5	22.0
	8H	20.1	20.5	20.6	20.9	21.3	20.7	21.0	21.1	21.5	21.9
	12H	20.0	20.3	20.5	20.8	21.3	20.6	20.9	21.1	21.4	21.9
12H	4H	20.2	20.7	20.6	21.0	21.5	20.8	21.2	21.2	21.6	22.0
	6H	20.1	20.5	20.6	20.9	21.3	20.7	21.0	21.1	21.5	21.9
	8H	20.0	20.3	20.5	20.8	21.3	20.6	20.9	21.1	21.4	21.9
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 3.1 / -24.5					+ 3.4 / -22.6					
1.5H	+ 5.1 / -14.9					+ 5.5 / -14.9					
2.0H	+ 6.9 / -36.2					+ 7.0 / -35.3					

CIE Pub.117, 587.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.8)
Area: 0.00312 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:

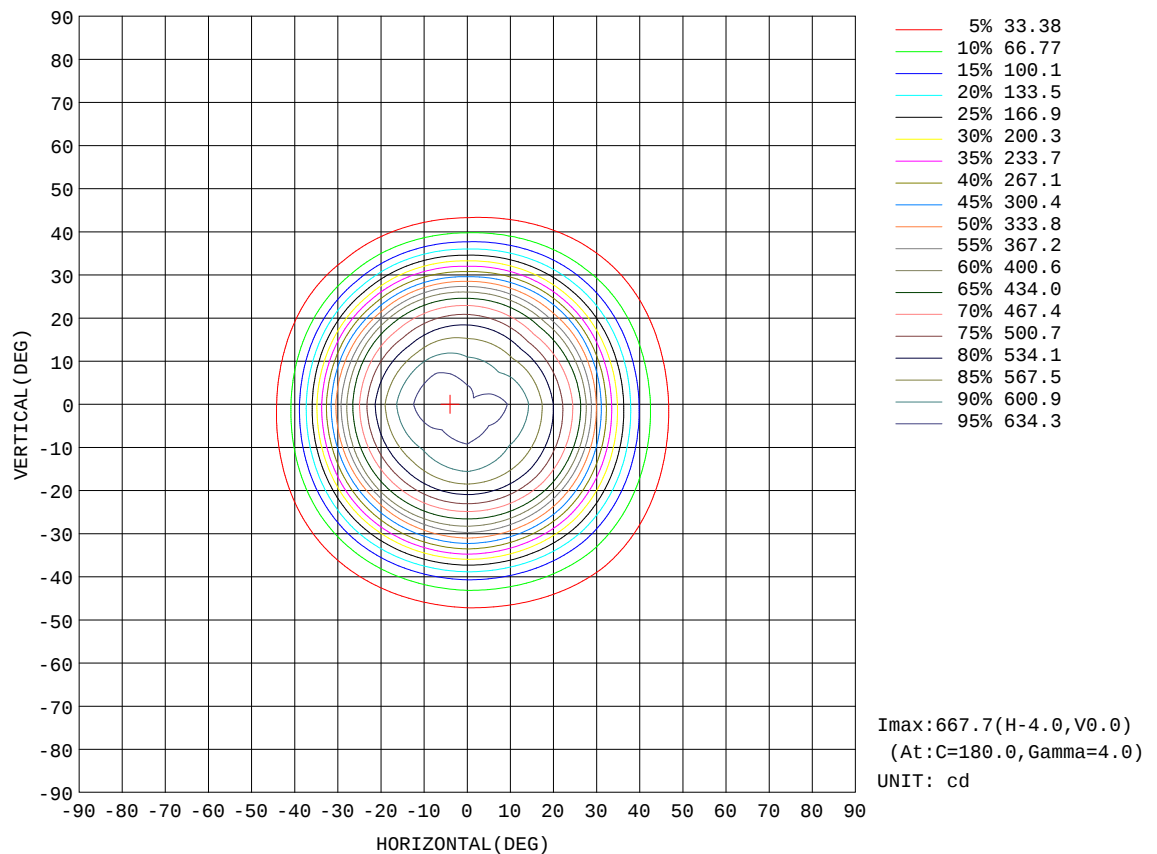
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	81	77	87	81	77	86	81	77	74
0.80	95	89	86	94	89	85	93	88	85	81
1.00	99	94	90	99	93	90	97	93	90	86
1.25	103	98	95	102	98	95	100	96	94	89
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	104	101	99	94
2.50	110	107	104	109	105	103	105	103	101	95
3.00	112	108	106	110	107	105	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:

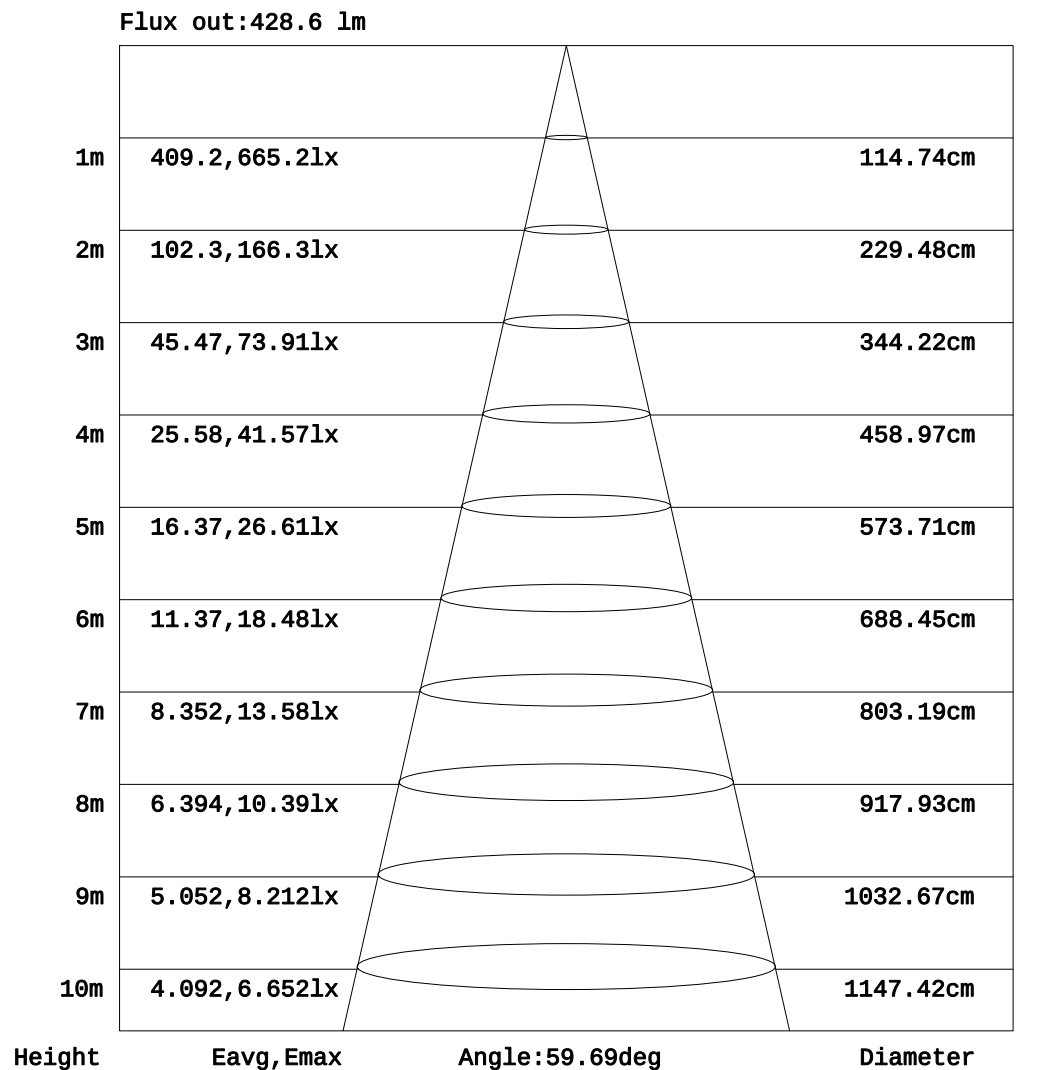


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.250m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:



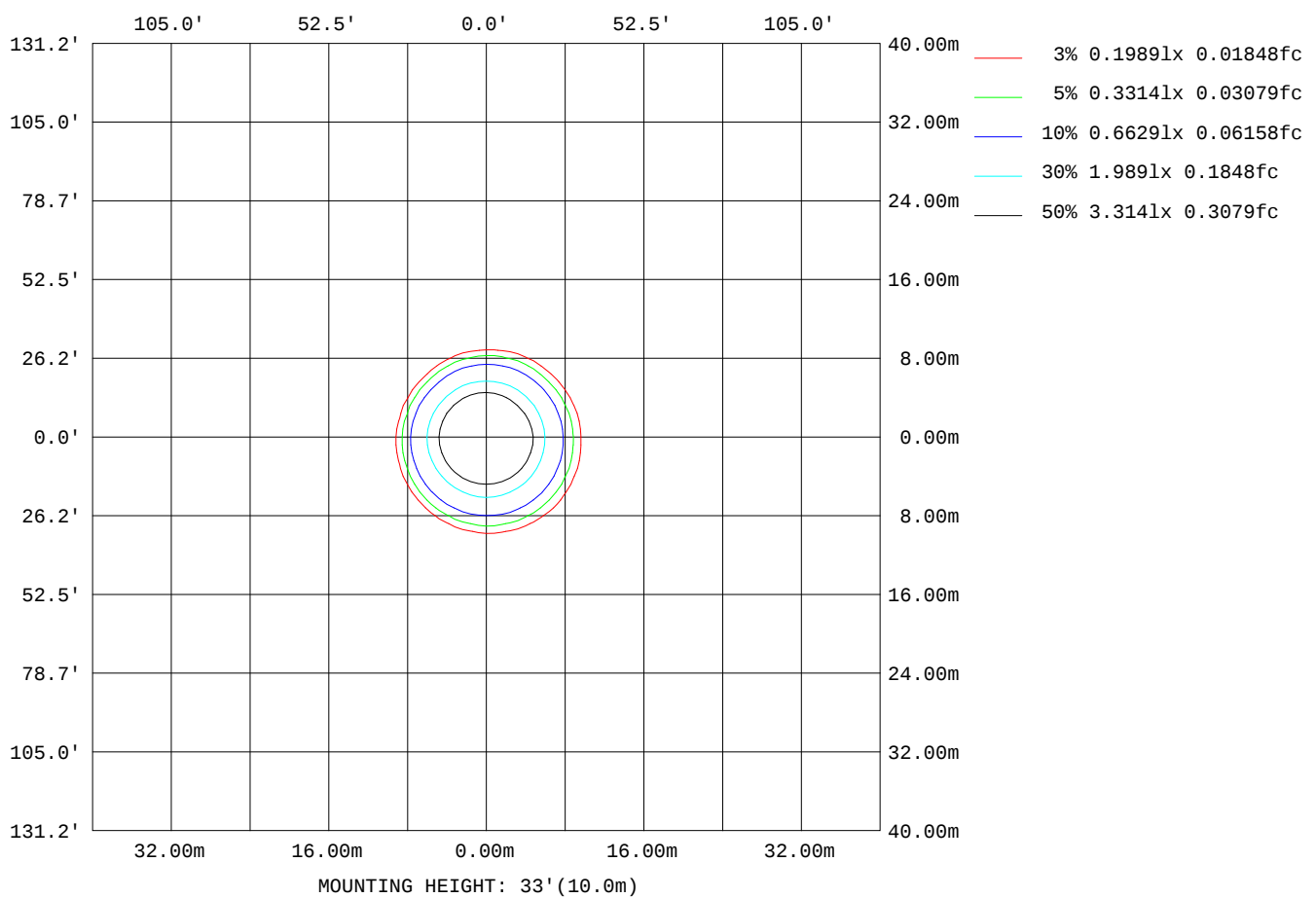
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:

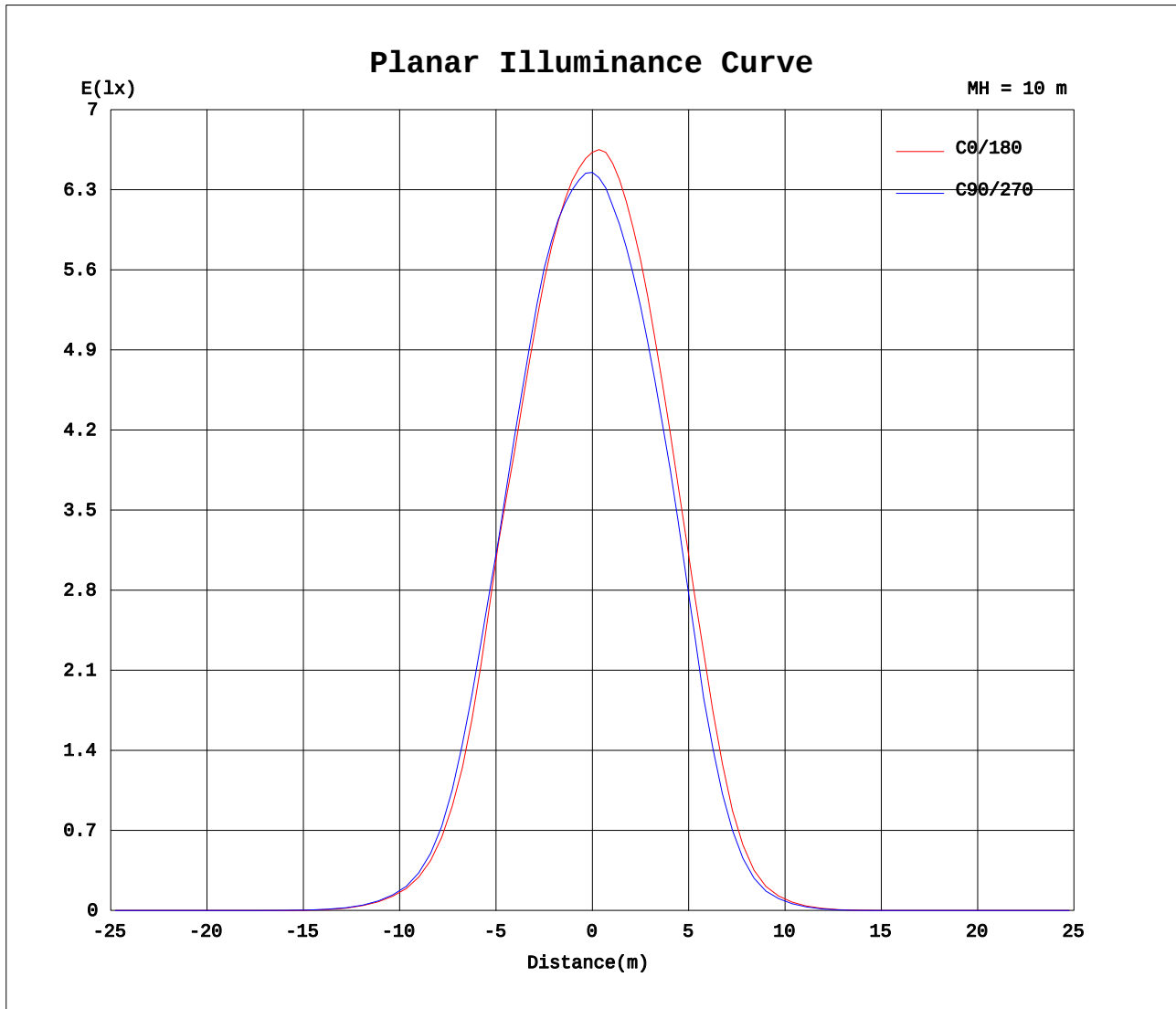
AvgL	cd/m2
L_0~180(65)av	11
L_0~180(75)av	0
L_0~180(85)av	0
L_90~270(65)av	18
L_90~270(75)av	0
L_90~270(85)av	0
L_45(65)av	6
L_45(75)av	0
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2021-05-20

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.250m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2021-05-20

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.250m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.84V I:0.0437A P:8.9527W PF:0.9275 Freq:50.01Hz Lamp Flux:587.698x1 lm		
NAME: DL9455 BK TC	TYPE:	WEIGHT:
SPEC.: 10W	DIM.:	SERIAL No.:
MFR.:	SUR.: 63mm	Shielding Angle:

Table--1

UNIT: cd

C(DEC)	0	45	90	135	180	225	270	315										
γ (DEC)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
0	663	653	645	638	663	653	645	638										
5	653	645	643	642	668	652	636	627										
10	631	621	633	628	649	635	607	603										
15	603	599	615	606	624	601	579	577										
20	533	547	548	545	555	520	512	502										
25	475	485	485	484	487	459	447	441										
30	331	348	362	343	348	303	287	306										
35	219	246	255	240	226	187	180	194										
40	97.5	112	111	98.6	78.5	59.8	62.9	73.8										
45	51.6	61.3	56.9	44.5	34.6	26.0	28.4	38.3										
50	16.4	20.6	18.3	12.2	7.35	4.85	5.64	10.1										
55	4.52	6.69	5.68	3.09	1.47	0.90	1.16	2.65										
60	0.24	0.48	0.45	0.14	0.03	0.03	0.00	0.05										
65	0.04	0.03	0.06	0.00	0.00	0.01	0.00	0.01										
70	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00										
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
95	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00										
100	0.07	0.08	0.04	0.09	0.01	0.00	0.01	0.00										
105	0.16	0.16	0.11	0.17	0.05	0.02	0.05	0.00										
110	0.33	0.32	0.27	0.33	0.14	0.11	0.14	0.08										
115	0.49	0.46	0.41	0.46	0.22	0.21	0.23	0.16										
120	0.73	0.70	0.64	0.69	0.38	0.37	0.39	0.33										
125	0.92	0.88	0.81	0.86	0.51	0.50	0.52	0.45										
130	1.17	1.14	1.08	1.10	0.72	0.72	0.74	0.67										
135	1.33	1.28	1.22	1.24	0.88	0.87	0.88	0.81										
140	1.56	1.51	1.44	1.47	1.11	1.09	1.10	1.02										
145	1.69	1.64	1.58	1.59	1.25	1.21	1.23	1.15										
150	1.82	1.78	1.74	1.73	1.42	1.38	1.38	1.29										
155	1.86	1.83	1.80	1.77	1.52	1.45	1.46	1.36										
160	1.88	1.84	1.82	1.78	1.59	1.53	1.52	1.41										
165	1.85	1.82	1.80	1.77	1.65	1.59	1.57	1.45										
170	1.79	1.78	1.74	1.74	1.72	1.65	1.62	1.51										
175	1.77	1.79	1.70	1.73	1.77	1.73	1.67	1.60										
180	1.78	1.81	1.70	1.71	1.81	1.79	1.73	1.70										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2021-05-20

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks: