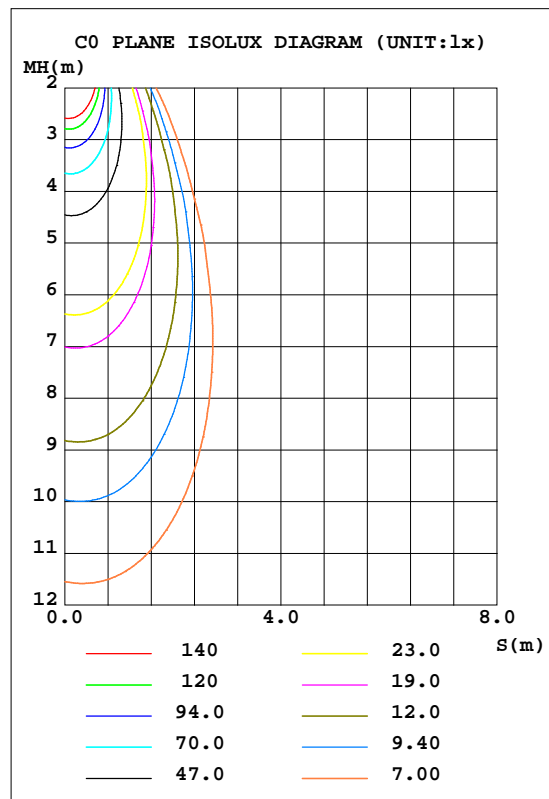
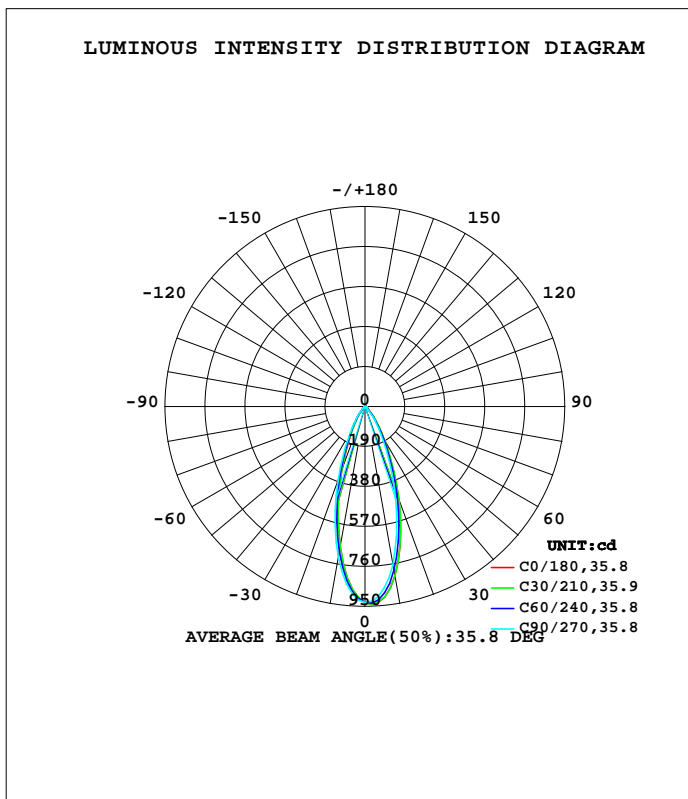


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 60.94 lm/W
MODEL	1930A-FF	I _{max} (cd)	940.0	S/MH(C0/180)	0.52	
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.57	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	442.32	h UP, DN(C0-180)	0.0, 51.5	
NOMINAL FLUX(lm)	442.323	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0, 48.5	
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	230	h down(%)	100.0	CIBSE SHR MAX	0.60	



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

Range: 0 - 90DEG
 Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

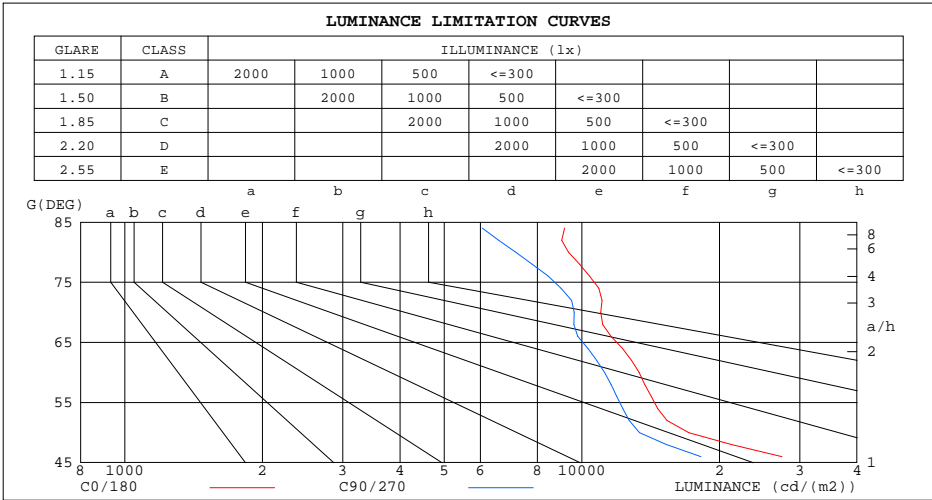
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	819.2	808.9	766.7	706.5	679.9	686.5	727.2	785.2	0- 10	79.84	79.84	18,18
20	471.6	463.3	406.8	350.5	320.0	333.8	375.5	437.6	10- 20	156.8	236.6	53.5,53.5
30	186.6	184.1	152.8	123.5	108.3	116.3	136.2	167.9	20- 30	115.6	352.2	79.6,79.6
40	64.36	60.33	44.75	33.83	28.13	31.16	39.21	54.63	30- 40	54.92	407.2	92,92
50	13.84	12.52	10.79	10.41	9.991	10.38	10.75	12.46	40- 50	17.22	424.4	95.9,95.9
60	8.383	7.782	7.041	6.982	6.760	7.191	7.401	7.947	50- 60	8.256	432.6	97.8,97.8
70	4.723	4.511	4.136	4.098	4.002	4.311	4.427	4.617	60- 70	5.695	438.3	99.1,99.1
80	2.039	1.867	1.562	1.354	1.245	1.460	1.721	1.940	70- 80	3.152	441.5	99.8,99.8
90	0.2877	0.1881	0.0516	0.0516	0.0516	0.0516	0.0516	0.1733	80- 90	0.8444	442.3	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		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

g Range: 0 - 90DEG
 Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

LUMINANCE LIMITATION CURVES

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	11005	7265
80	9348	7162
75	11605	9590
70	10996	9628
65	12738	10696
60	13349	11212
55	15029	12601
50	17144	13370
45	37517	25021

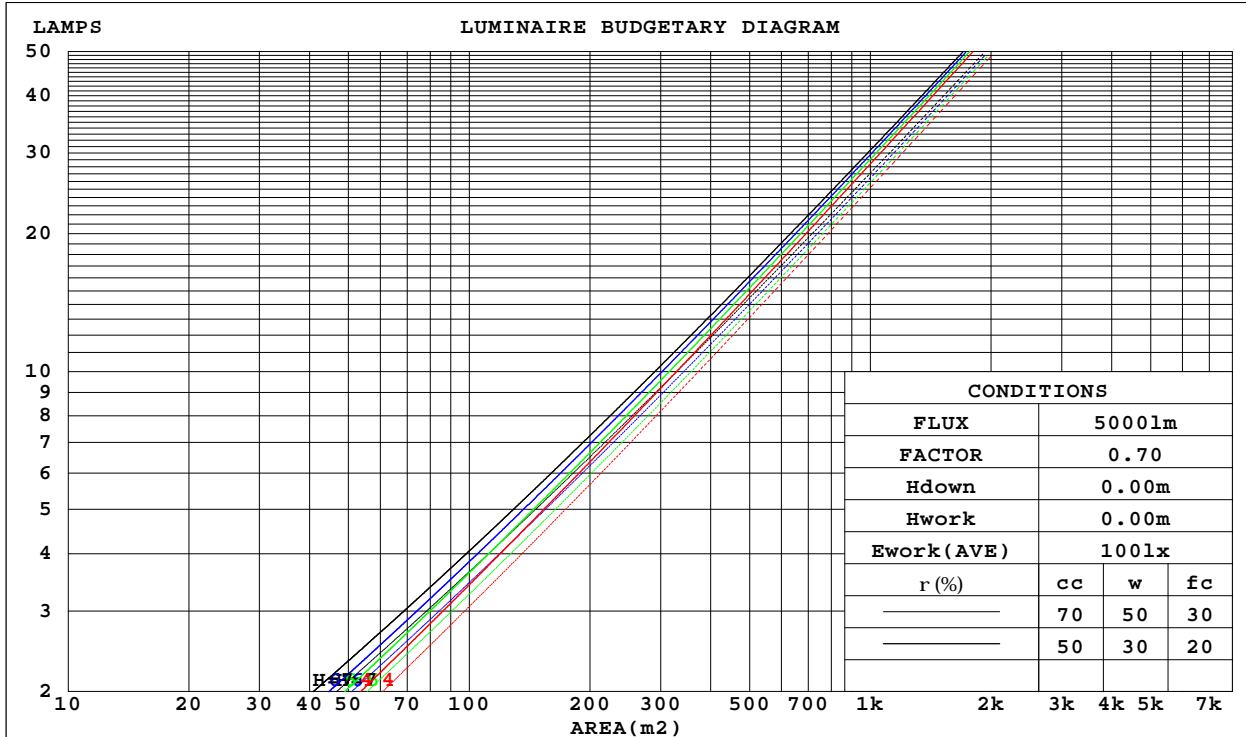
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

G Range: 0 - 90DEG
 G Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.98	.93	.89	.96	.92	.89	.94	.90	.87	.91	.88	.86	.89	.87	.84	.83
4.0	.92	.87	.83	.91	.86	.82	.89	.85	.82	.87	.83	.81	.85	.82	.80	.78
5.0	.87	.82	.78	.86	.81	.77	.84	.80	.77	.83	.79	.76	.81	.78	.75	.74
6.0	.83	.77	.73	.82	.77	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.78	.73	.69	.77	.72	.69	.75	.71	.68	.74	.71	.68	.67
8.0	.75	.69	.66	.74	.69	.65	.73	.69	.65	.72	.68	.65	.71	.67	.65	.63
9.0	.71	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.65	.62	.61
10.0	.68	.63	.60	.68	.63	.60	.67	.63	.59	.66	.62	.59	.66	.62	.59	.58



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

Range: 0 - 90DEG
 Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

WEC AND CCEC

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.172	.098	.031	.165	.094	.030	.153	.088	.028	.141	.081	.026	.131	.076	.024	
2.0	.163	.089	.027	.157	.086	.027	.146	.081	.025	.137	.077	.024	.128	.072	.023	
3.0	.153	.081	.024	.148	.079	.024	.139	.076	.023	.131	.072	.022	.123	.068	.021	
4.0	.144	.075	.022	.140	.073	.022	.133	.070	.021	.126	.067	.020	.119	.065	.020	
5.0	.137	.070	.020	.133	.068	.020	.127	.066	.019	.120	.064	.019	.115	.061	.018	
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.115	.060	.018	.110	.058	.017	
7.0	.123	.061	.017	.121	.060	.017	.116	.058	.017	.111	.057	.017	.106	.055	.016	
8.0	.118	.058	.016	.115	.057	.016	.111	.055	.016	.107	.054	.016	.103	.053	.015	
9.0	.113	.054	.015	.110	.054	.015	.106	.053	.015	.103	.051	.015	.099	.050	.015	
10.0	.108	.052	.014	.106	.051	.014	.102	.050	.014	.099	.049	.014	.096	.048	.014	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.033	.016	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.105	.075	.053	.072	.053	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.068	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.033	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.091	.053	.028	.078	.046	.025	.054	.033	.018	.032	.019	.011	.010	.006	.003	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

g Range: 0 - 90DEG
 g Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

UGR(Unified Glare Rating) Table

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm										
NAME: Hilton 5W LED shelf light					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: CG LIGHTING					SUR.:			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	22.8	23.6	23.0	23.8	24.0	21.6	22.5	21.8	22.7	22.8
3H	23.0	23.8	23.2	24.0	24.2	21.9	22.7	22.1	22.9	23.1
4H	23.1	23.9	23.4	24.1	24.3	22.0	22.8	22.3	23.0	23.2
6H	23.2	24.0	23.5	24.2	24.4	22.1	22.8	22.4	23.1	23.3
8H	23.3	24.0	23.6	24.2	24.5	22.1	22.8	22.4	23.1	23.3
12H	23.3	23.9	23.6	24.2	24.5	22.1	22.8	22.4	23.0	23.3
4H 2H	22.7	23.5	23.0	23.7	23.9	21.6	22.4	21.9	22.6	22.8
3H	23.1	23.7	23.4	24.0	24.3	22.1	22.7	22.4	23.0	23.3
4H	23.3	23.9	23.7	24.2	24.5	22.3	22.9	22.6	23.2	23.5
6H	23.5	24.0	23.9	24.4	24.7	22.5	23.0	22.8	23.3	23.7
8H	23.6	24.0	23.9	24.4	24.8	22.5	23.0	22.9	23.3	23.7
12H	23.6	24.0	24.0	24.4	24.8	22.5	23.0	22.9	23.3	23.7
8H 4H	23.3	23.8	23.7	24.2	24.5	22.4	22.9	22.7	23.2	23.6
6H	23.6	24.0	24.0	24.4	24.8	22.6	23.0	23.0	23.4	23.8
8H	23.7	24.0	24.1	24.5	24.9	22.7	23.0	23.1	23.5	23.9
12H	23.8	24.1	24.2	24.5	25.0	22.7	23.0	23.2	23.5	24.0
12H 4H	23.3	23.7	23.7	24.1	24.5	22.3	22.8	22.7	23.2	23.5
6H	23.6	23.9	24.0	24.3	24.8	22.6	23.0	23.0	23.4	23.8
8H	23.7	24.0	24.1	24.4	24.9	22.7	23.0	23.2	23.5	23.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.8 / - 2.3					+ 1.6 / - 2.0				
1.5H	+ 3.5 / - 2.1					+ 3.3 / - 1.9				
2.0H	+ 2.0 / - 0.6					+ 1.2 / - 0.6				

CIE Pub.117, 442.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.8)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

g Range: 0 - 90DEG
 g Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

UTILIZATION FACTORS TABLE

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:

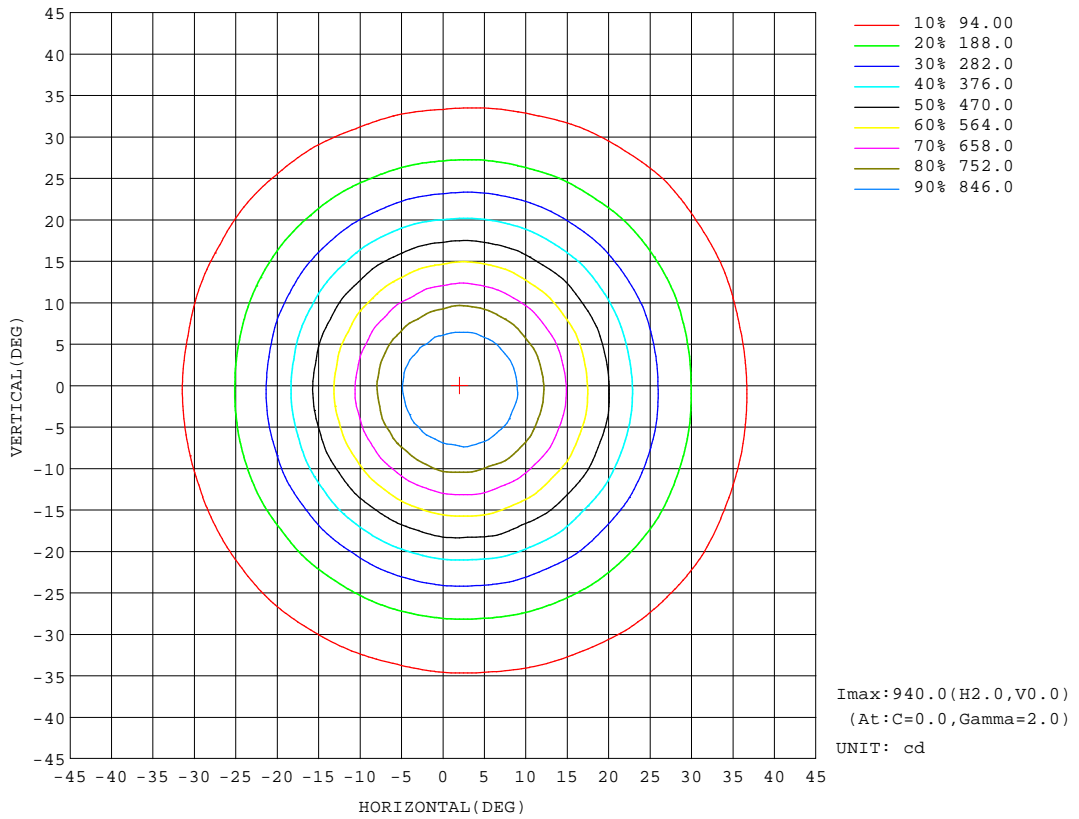
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	87	80	76	86	80	76	85	80	76	72
0.80	94	88	84	93	88	84	92	87	84	80
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	101	97	93	100	95	92	88
1.50	105	100	97	104	100	96	102	98	95	91
2.00	108	104	100	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	106	104	106	104	102	95
4.00	114	111	108	111	109	107	108	106	104	97
5.00	115	112	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: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

g Range: 0 - 90DEG
 Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

ISOCANDELA DIAGRAM

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:

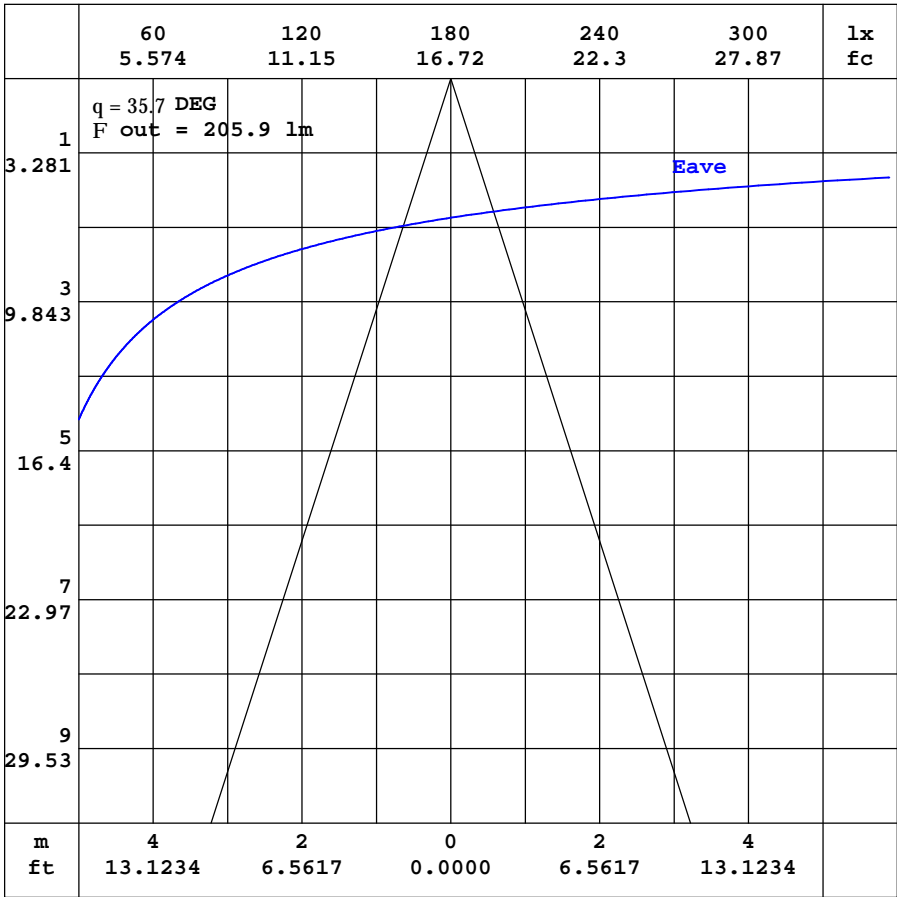


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
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Range: 0 - 90DEG
 Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

AAI CURVES

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:



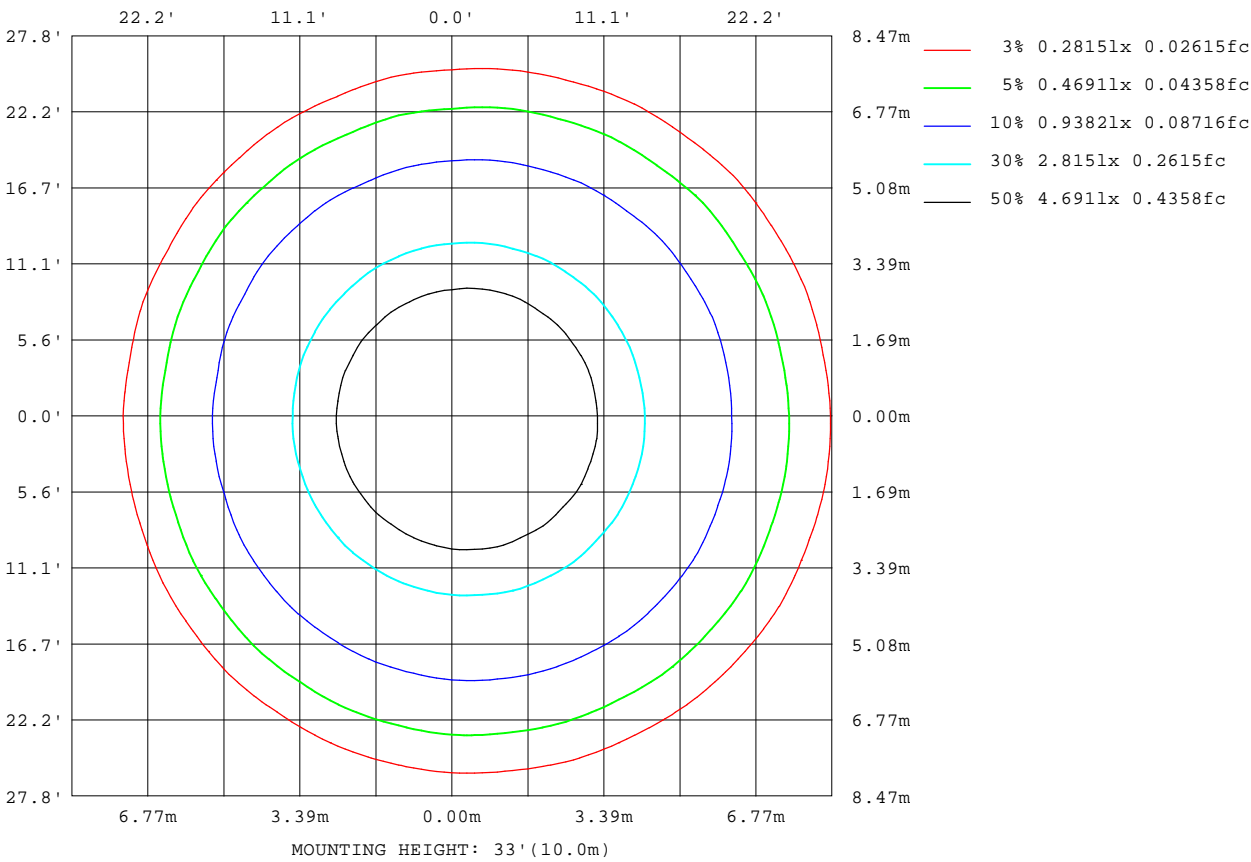
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LQL
Test Date:07 June 2023

Range: 0 - 90DEG
Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
Humidity:65.0%
Test Distance:10.365m [K=1.0000]
Remarks: ZG1BGC AED36-12VLSJ

ISOLUX DIAGRAM

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LQL
 Test Date: 07 June 2023

Range: 0 - 90DEG
 Interval: 2.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity: 65.0%
 Test Distance: 10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

LED Avg.L Report

Test:U:230.73V I:0.0441A P:7.2587W PF:0.7127 Freq:49.99Hz Lamp Flux:442.323x1 lm		
NAME: Hilton 5W LED shelf light	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: CG LIGHTING	SUR.:	Shielding Angle:

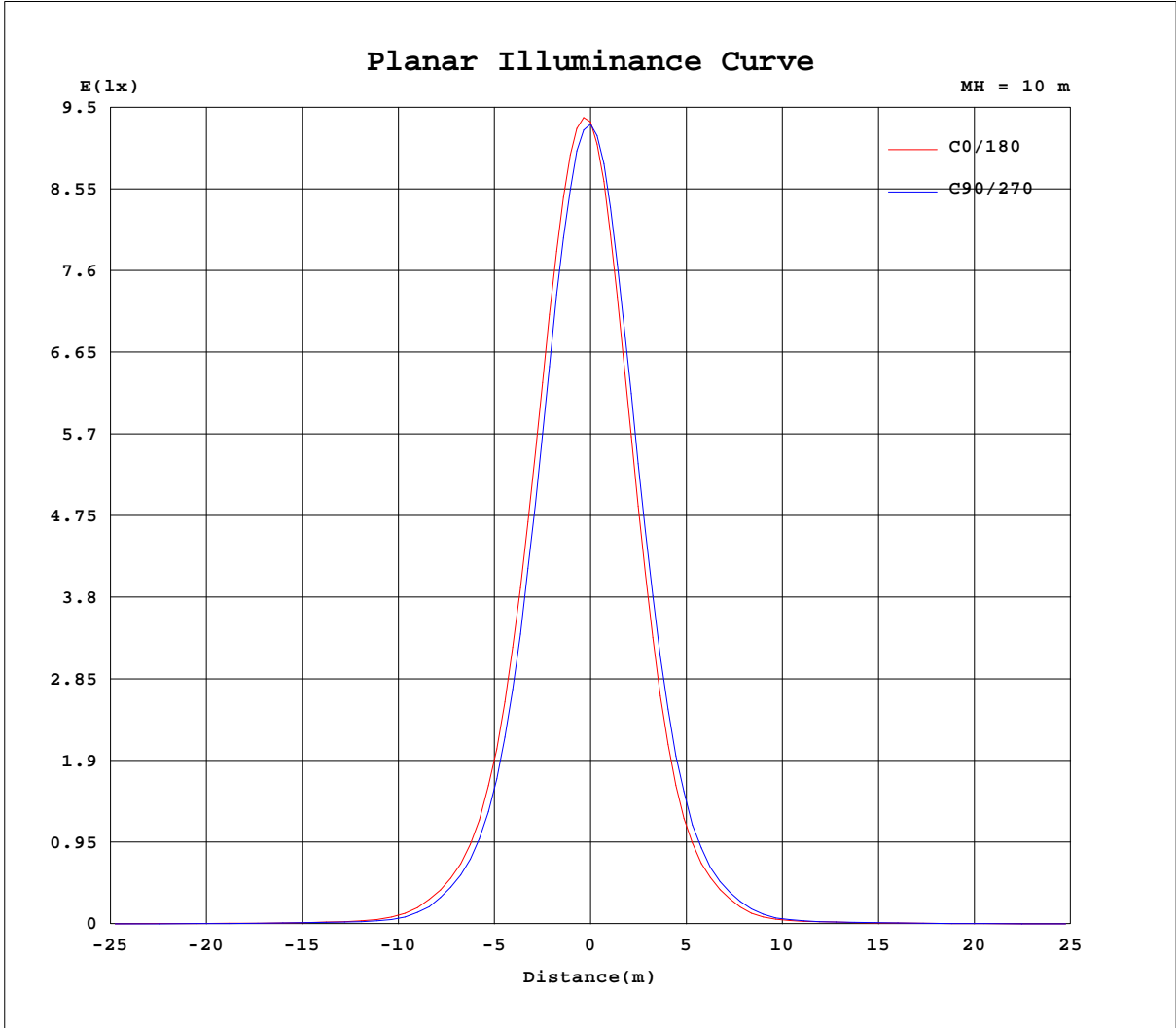
AvgL	cd/m2
L_0~180(65)av	10822
L_0~180(75)av	9088
L_0~180(85)av	6562
L_90~270(65)av	10326
L_90~270(75)av	9039
L_90~270(85)av	6608
L_45(65)av	10713
L_45(75)av	9196
L_45(85)av	6731

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LQL
 Test Date:07 June 2023

g Range: 0 - 90DEG
 g Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.403
 Humidity:65.0%
 Test Distance:10.365m [K=1.0000]
 Remarks: ZG1BGC AED36-12VLSJ

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LQL
Test Date: 07 June 2023

Page Range: 0 - 90DEG
Page Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.403
Humidity: 65.0%
Test Distance: 10.365m [K=1.0000]
Remarks: ZG1BGC AED36-12VLSJ

