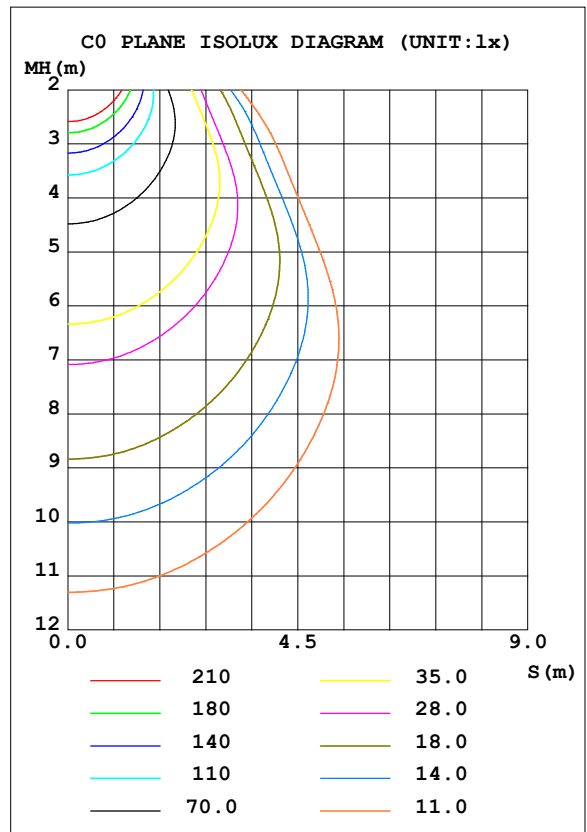
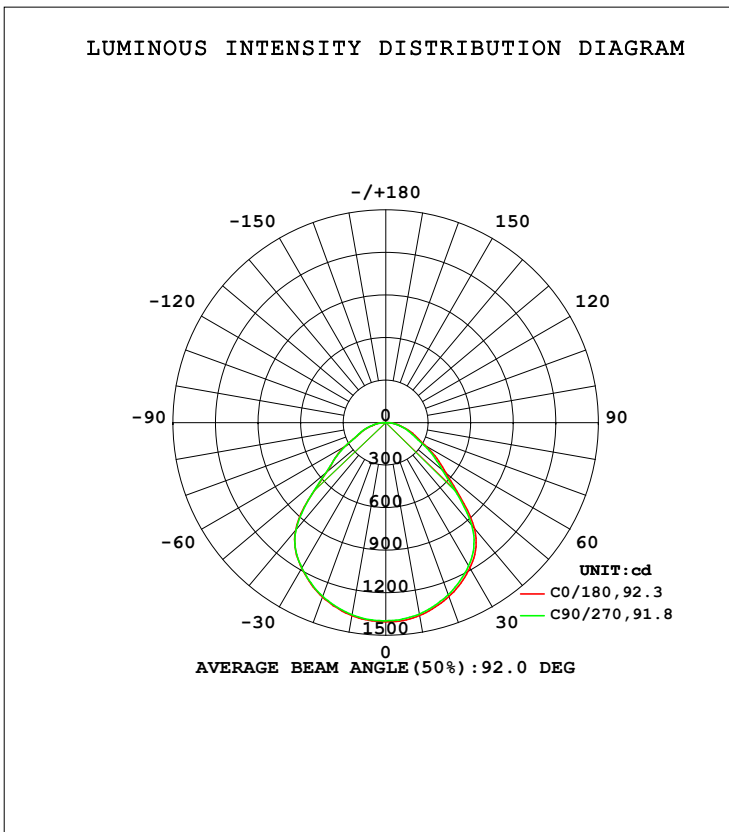


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 105.12 lm/W			
MODEL	UGR19-60SQ-CC	Imax (cd)	1405	S/MH (C0/180)	1.25
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	240	TOTAL FLUX (lm)	3215.5	<input type="checkbox"/> UP, DN (C0-180)	0.0, 49.4
NOMINAL FLUX (lm)	3215.51	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0, 50.6
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	240	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity: 65.0%
 Test Distance: 8.570m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

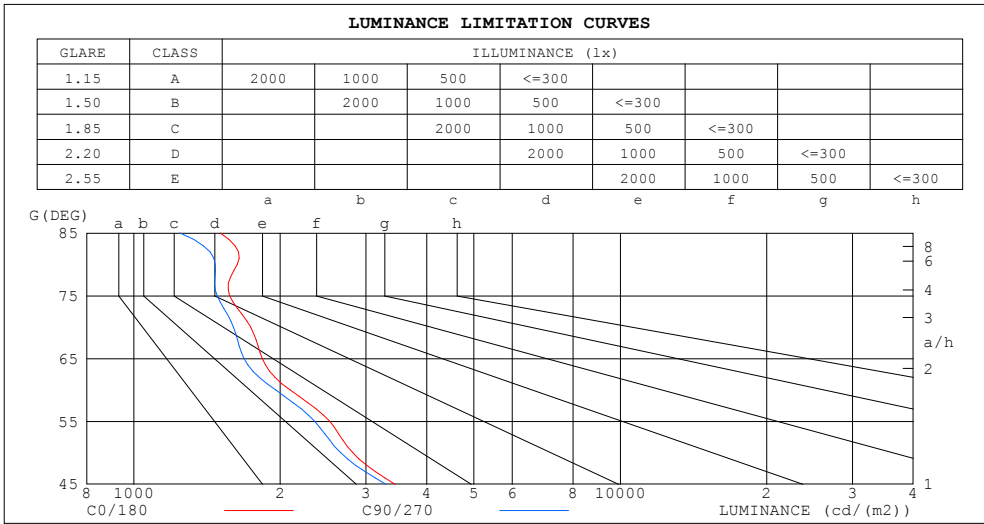
mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	1381	1371	1370	1370	1381	1373	1376	1376	0- 10	132.4	132.4	4.12,4.12
20	1304	1300	1291	1296	1307	1303	1303	1307	10- 20	378.9	511.3	15.9,15.9
30	1186	1179	1167	1175	1186	1188	1183	1195	20- 30	575.1	1086	33.8,33.8
40	972.6	952.9	940.5	947.6	989.3	974.9	984.6	979.0	30- 40	679.7	1766	54.9,54.9
50	554.3	634.0	523.3	618.2	548.3	646.0	555.0	653.0	40- 50	605.5	2372	73.8,73.8
60	320.2	351.0	299.1	344.1	329.6	372.5	325.6	381.8	50- 60	416.0	2788	86.7,86.7
70	181.8	174.1	167.6	171.9	173.6	181.5	178.3	184.4	60- 70	243.4	3031	94.3,94.3
80	86.65	92.93	78.11	85.16	77.52	92.75	84.41	99.29	70- 80	139.5	3171	98.6,98.6
90	1.545	2.000	0.8930	0.7219	0.6363	1.556	2.144	3.563	80- 90	44.97	3216	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: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1506	1244
80	1632	1471
75	1574	1484
70	1738	1603
65	1836	1684
60	2094	1956
55	2527	2354
50	2820	2662
45	3442	3295

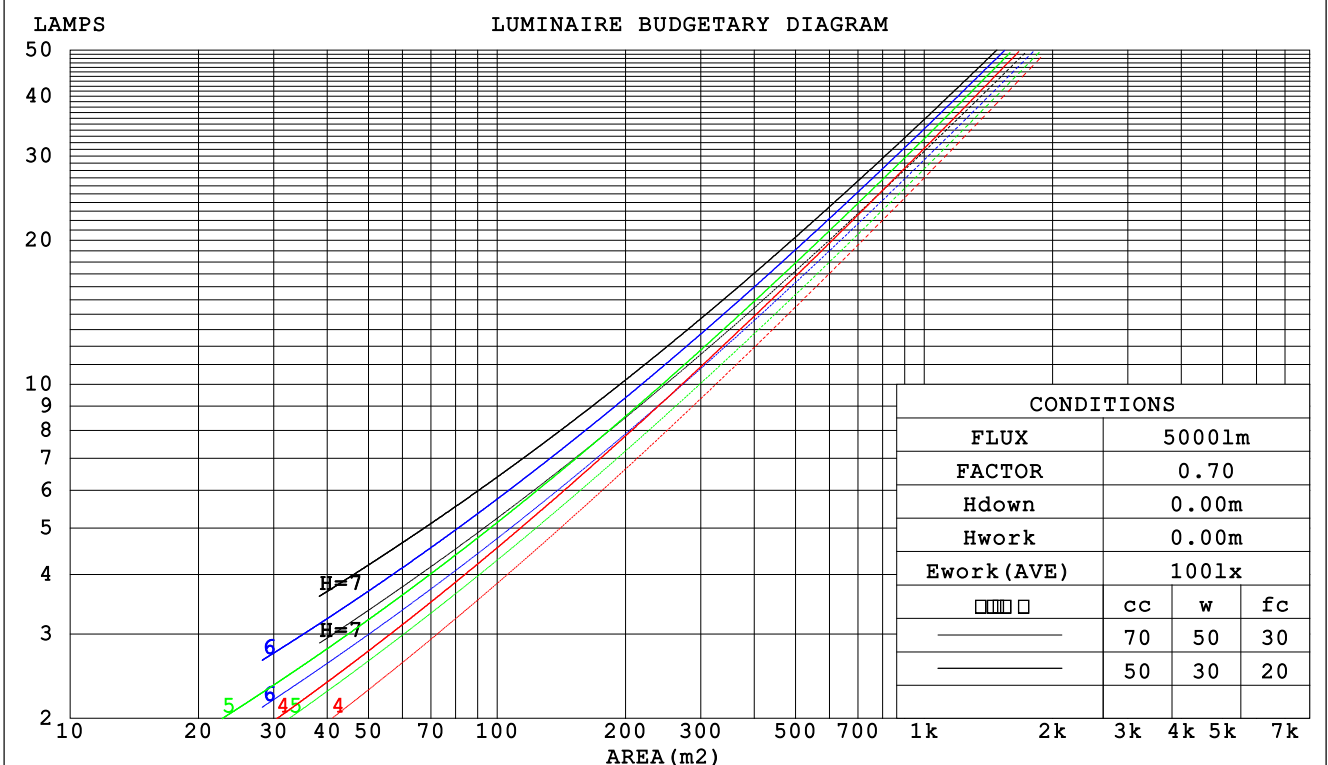
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□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	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.88	.83	.92	.86	.82	.88	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.84	.76	.70	.82	.75	.70	.79	.73	.68	.76	.71	.67	.74	.70	.66	.64
4.0	.75	.67	.61	.74	.66	.60	.71	.65	.60	.69	.63	.59	.67	.62	.58	.56
5.0	.68	.59	.53	.67	.59	.53	.64	.58	.52	.63	.56	.52	.61	.55	.51	.49
6.0	.61	.53	.47	.60	.53	.47	.59	.52	.46	.57	.51	.46	.55	.50	.46	.44
7.0	.56	.48	.42	.55	.47	.42	.54	.47	.41	.52	.46	.41	.51	.45	.41	.39
8.0	.51	.43	.38	.51	.43	.38	.49	.42	.37	.48	.42	.37	.47	.41	.37	.35
9.0	.47	.39	.34	.47	.39	.34	.46	.39	.34	.44	.38	.34	.43	.38	.34	.32
10.0	.44	.36	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.40	.35	.31	.29



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-07-15

□ Range: 0 - 90DEG
□ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:8.570m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.273	.155	.049	.266	.152	.048	.253	.145	.046	.241	.139	.045	.230	.133	.043	
2.0	.260	.142	.044	.253	.140	.043	.242	.135	.042	.232	.130	.041	.222	.125	.040	
3.0	.243	.129	.039	.238	.127	.038	.228	.123	.037	.218	.120	.037	.210	.116	.036	
4.0	.227	.118	.035	.222	.116	.034	.213	.113	.034	.205	.110	.033	.197	.107	.033	
5.0	.212	.108	.031	.208	.107	.031	.200	.104	.031	.192	.101	.030	.186	.099	.030	
6.0	.198	.099	.028	.194	.098	.028	.187	.096	.028	.181	.094	.028	.175	.092	.027	
7.0	.186	.092	.026	.182	.091	.026	.176	.089	.026	.170	.087	.025	.165	.086	.025	
8.0	.175	.085	.024	.172	.085	.024	.166	.083	.024	.161	.081	.024	.156	.080	.023	
9.0	.165	.080	.022	.162	.079	.022	.157	.078	.022	.152	.076	.022	.148	.075	.022	
10.0	.156	.075	.021	.153	.074	.021	.149	.073	.021	.144	.072	.020	.140	.071	.020	

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.137	.098	.068	.094	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.151	.100	.062	.130	.087	.054	.089	.061	.038	.052	.035	.022	.017	.012	.007	
5.0	.144	.090	.050	.124	.078	.043	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.137	.081	.041	.118	.070	.036	.081	.049	.025	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.112	.064	.030	.078	.045	.022	.045	.027	.013	.015	.009	.004	
8.0	.124	.068	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.119	.064	.026	.102	.055	.023	.071	.039	.016	.041	.023	.010	.013	.008	.003	
10.0	.113	.059	.023	.098	.051	.020	.068	.036	.014	.040	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm										
NAME: UGR19-60SQ-CC					TYPE:30W			WEIGHT:		
SPEC.:3000K					DIM.:			SERIAL No.:1		
MFR.:					SUR.:0.553*0.553			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	15.8	17.1	16.0	17.3	17.5	15.5	16.9	15.7	17.1	17.3
3H	16.5	17.8	16.8	18.1	18.3	16.2	17.5	16.5	17.8	18.0
4H	16.9	18.1	17.2	18.4	18.6	16.6	17.8	16.9	18.1	18.3
6H	17.3	18.4	17.6	18.7	18.9	16.9	18.1	17.3	18.3	18.6
8H	17.4	18.5	17.7	18.8	19.1	17.0	18.1	17.4	18.4	18.7
12H	17.5	18.5	17.8	18.8	19.1	17.1	18.2	17.4	18.5	18.7
4H 2H	16.0	17.3	16.4	17.5	17.8	15.8	17.0	16.1	17.3	17.5
3H	17.1	18.1	17.4	18.4	18.7	16.8	17.9	17.2	18.2	18.5
4H	17.6	18.6	18.0	18.9	19.2	17.3	18.3	17.7	18.6	18.9
6H	18.1	19.0	18.5	19.3	19.7	17.8	18.7	18.2	19.0	19.4
8H	18.3	19.1	18.7	19.5	19.9	18.0	18.8	18.4	19.2	19.5
12H	18.5	19.2	18.9	19.6	20.0	18.1	18.8	18.5	19.2	19.6
8H 4H	17.8	18.6	18.2	19.0	19.3	17.6	18.4	18.0	18.7	19.1
6H	18.5	19.2	18.9	19.6	20.0	18.2	18.9	18.7	19.3	19.7
8H	18.8	19.4	19.3	19.8	20.3	18.5	19.1	19.0	19.5	19.9
12H	19.0	19.5	19.5	20.0	20.5	18.7	19.2	19.2	19.6	20.1
12H 4H	17.8	18.6	18.2	18.9	19.3	17.6	18.3	18.0	18.7	19.1
6H	18.6	19.1	19.0	19.6	20.0	18.3	18.9	18.8	19.3	19.8
8H	18.9	19.4	19.4	19.9	20.3	18.6	19.1	19.1	19.6	20.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.5				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				
2.0H	+ 0.6 / - 0.8					+ 0.7 / - 0.9				

CIE Pub.117, 3216 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.1)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

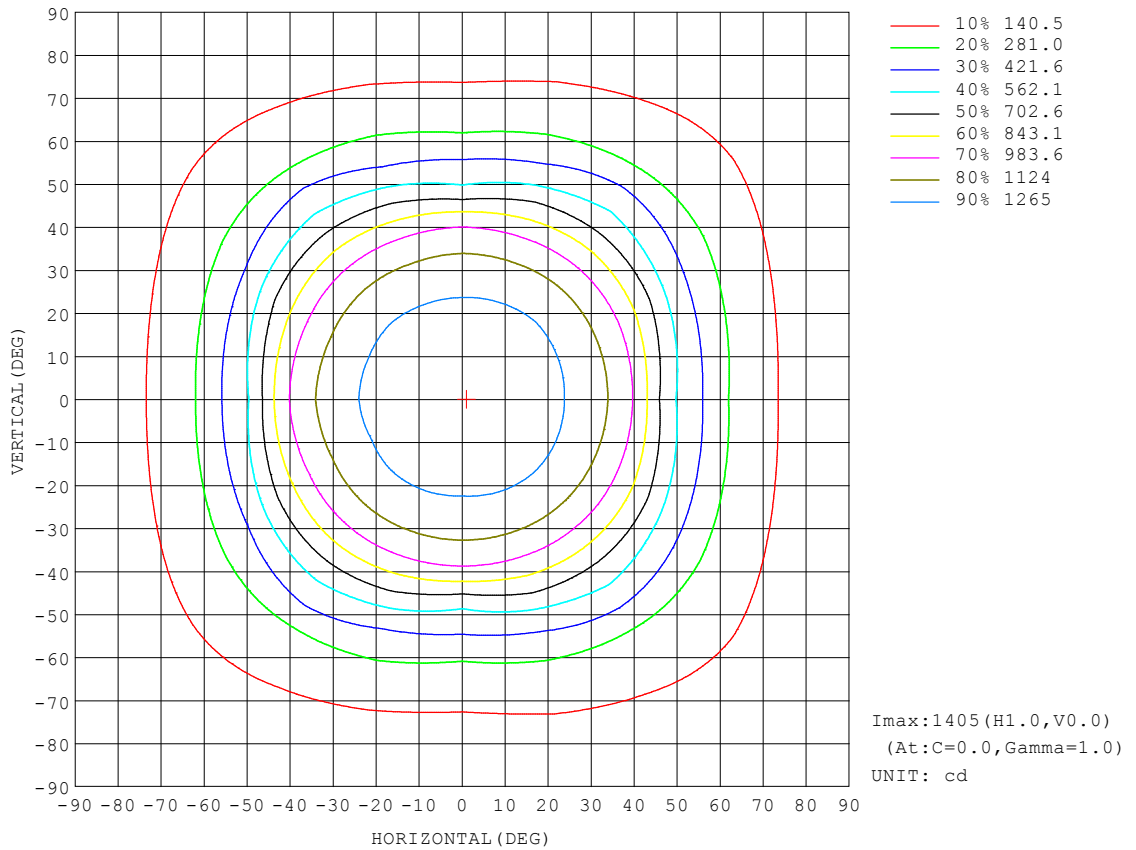
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	63	53	46	63	53	46	62	52	46	40
0.80	73	63	56	72	63	56	71	62	56	50
1.00	82	72	65	80	71	65	78	72	64	58
1.25	88	79	73	87	78	72	84	77	72	65
1.50	93	84	78	91	83	78	88	82	77	70
2.00	99	91	86	97	90	85	94	88	83	76
2.50	102	95	90	100	94	89	96	91	87	80
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	101	98	102	98	95	87
5.00	110	106	102	108	104	101	103	100	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

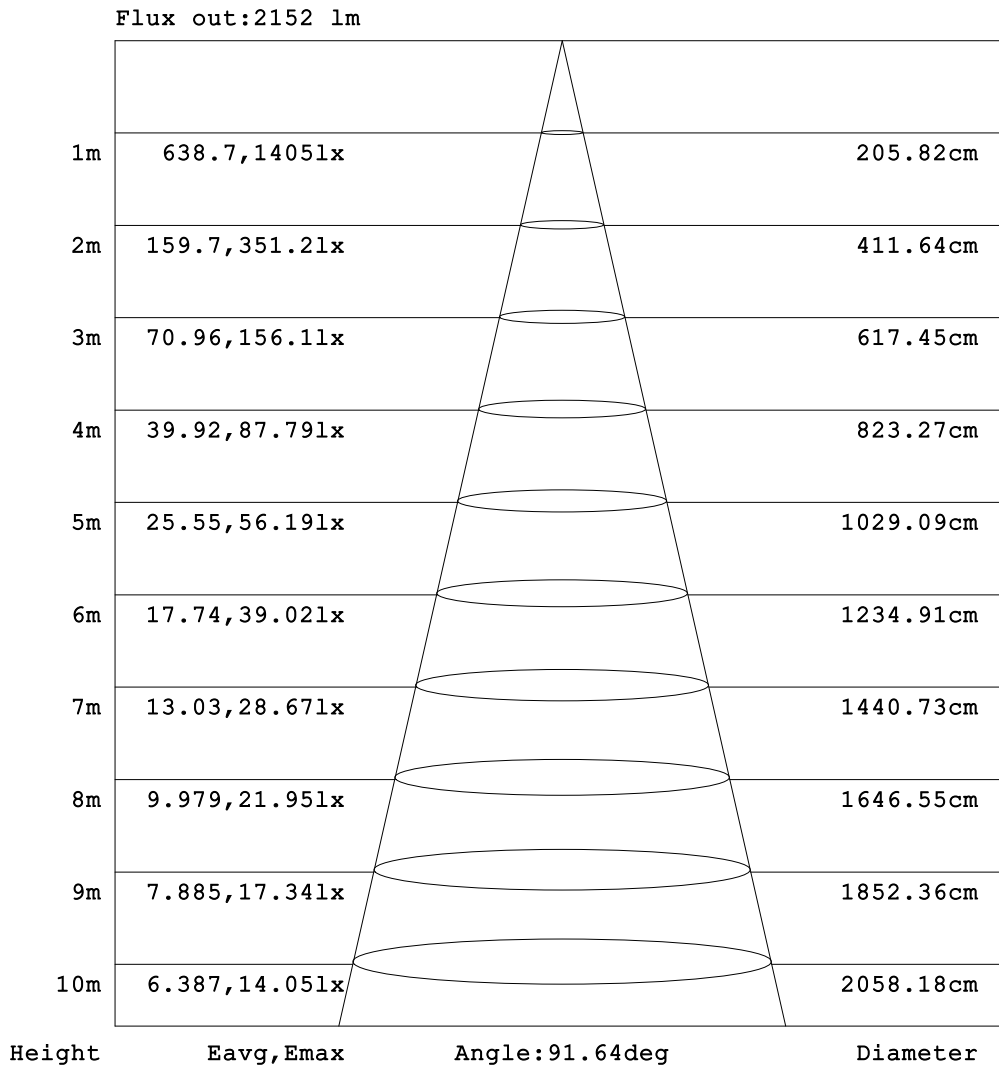


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
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 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:



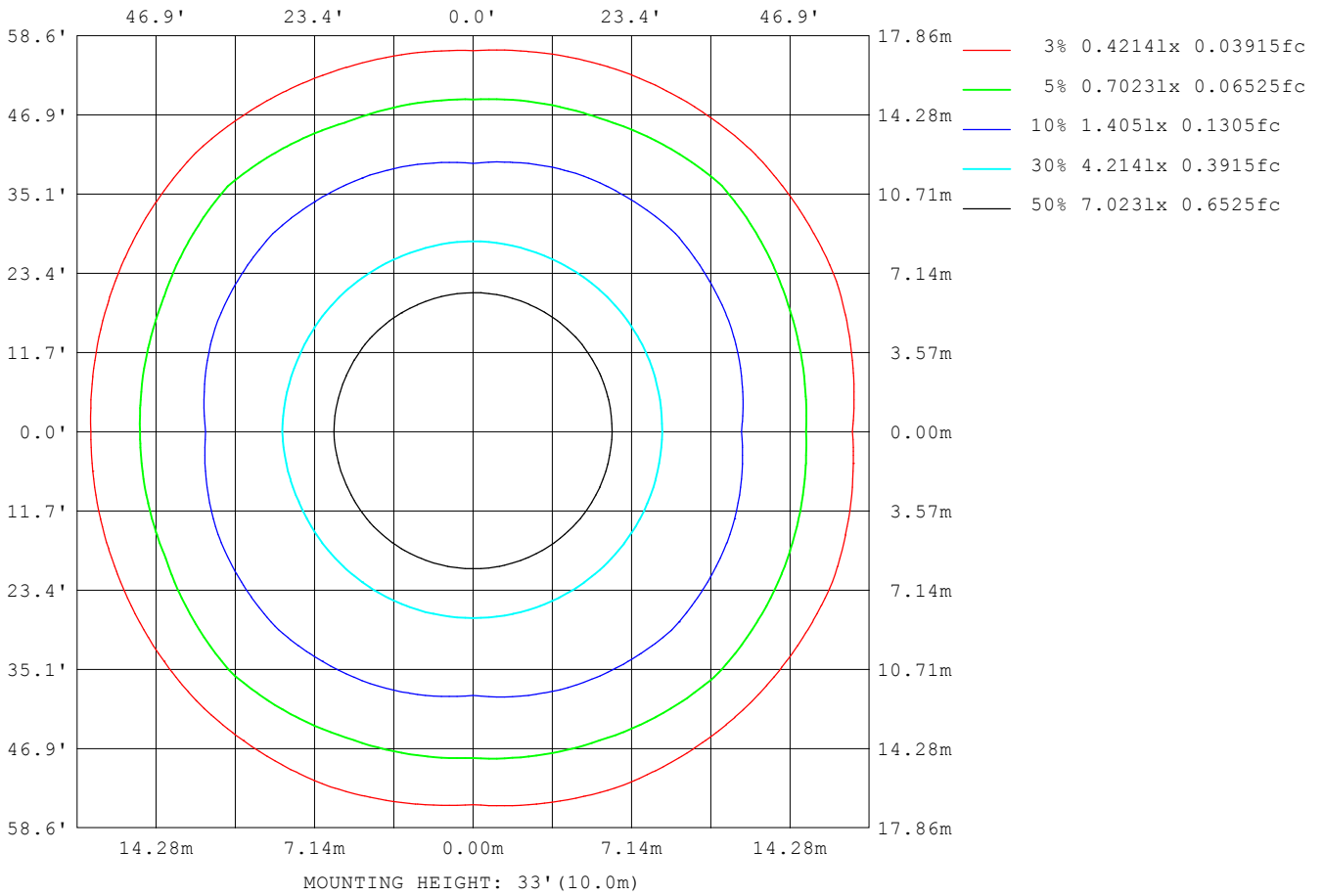
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

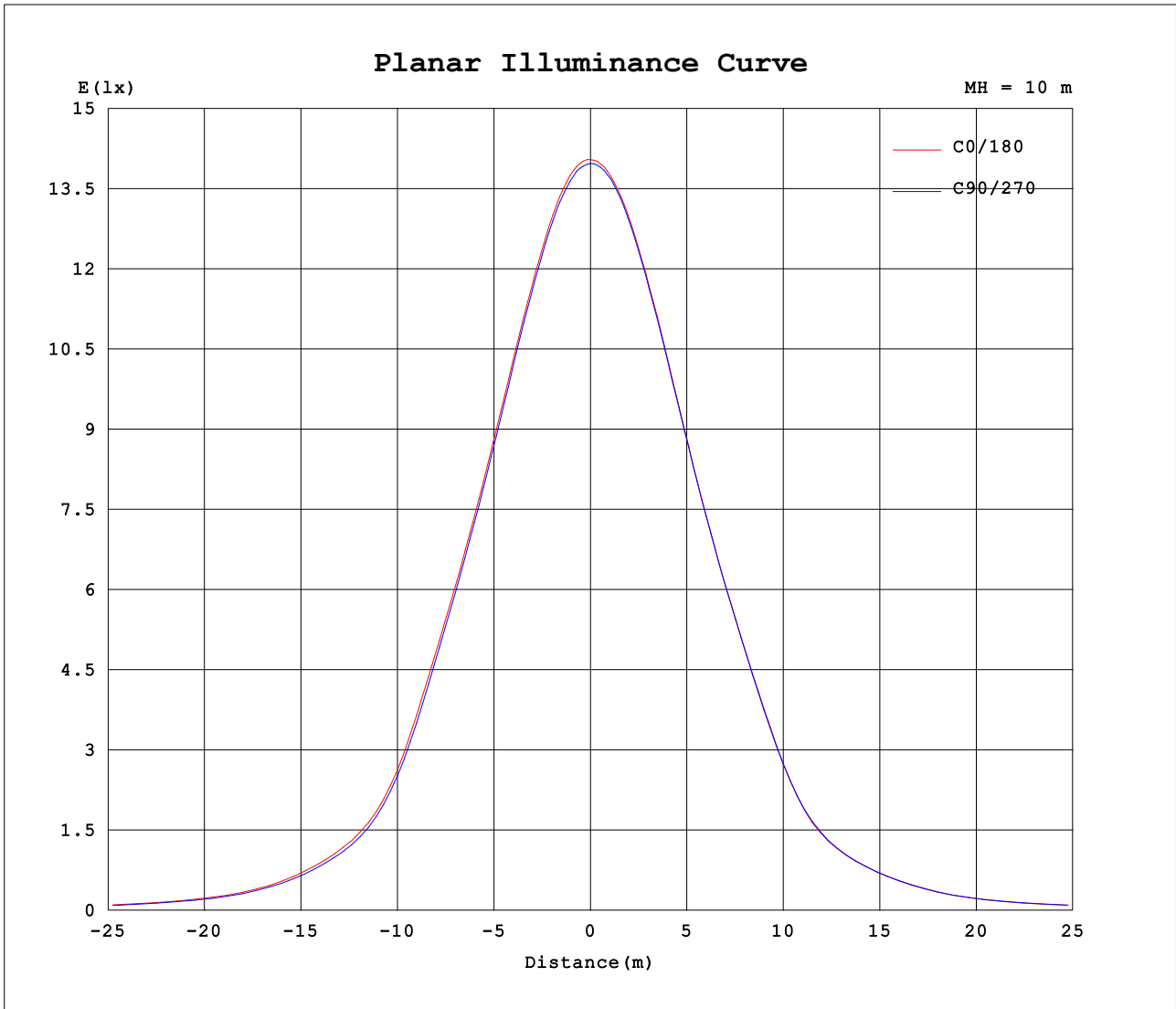
AvgL	cd/m2
L_0~180 (65) av	1784
L_0~180 (75) av	1561
L_0~180 (85) av	1443
L_90~270 (65) av	1726
L_90~270 (75) av	1539
L_90~270 (85) av	1412
L_45 (65) av	1855
L_45 (75) av	1694
L_45 (85) av	1679

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2022-07-15

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity: 65.0%
 Test Distance: 8.570m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.19V I:0.1309A P:30.590W PF:0.9733 Freq:50.00Hz Lamp Flux:3215.51x1 lm		
NAME: UGR19-60SQ-CC	TYPE:30W	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.553*0.553	Shielding Angle:

Table--1

UNIT: cd

C (DEG) □ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	1405	1399	1396	1397	1397	1397	1398	1397	1405	1399	1396	1397	1397	1397	1398	1397			
5	1400	1395	1391	1390	1390	1391	1390	1390	1399	1394	1392	1392	1393	1394	1396	1395			
10	1381	1375	1371	1370	1370	1370	1370	1371	1381	1375	1373	1374	1376	1375	1376	1377			
15	1347	1343	1339	1338	1336	1337	1338	1339	1349	1345	1344	1343	1345	1345	1346	1346			
20	1304	1304	1300	1298	1291	1294	1296	1295	1307	1303	1303	1302	1303	1305	1307	1306			
25	1251	1251	1250	1243	1234	1239	1245	1242	1253	1250	1255	1250	1249	1254	1261	1256			
30	1186	1181	1179	1173	1167	1169	1175	1173	1186	1182	1188	1182	1183	1187	1195	1190			
35	1104	1092	1083	1080	1082	1077	1079	1082	1108	1095	1097	1095	1105	1100	1104	1104			
40	973	963	953	946	941	943	948	955	989	975	975	972	985	976	979	982			
45	744	803	792	782	712	768	786	786	777	810	818	801	774	813	824	818			
50	554	621	634	599	523	588	618	610	548	635	646	621	555	633	653	635			
55	443	469	507	445	413	433	486	441	437	461	510	451	436	466	526	471			
60	320	356	351	336	299	333	344	333	330	350	372	345	326	356	382	368			
65	237	246	239	237	218	233	227	231	224	241	241	246	228	248	252	258			
70	182	184	174	178	168	172	172	169	174	173	181	178	178	181	184	192			
75	125	140	136	135	117	126	127	128	122	134	133	135	126	141	140	143			
80	86.6	93.5	92.9	87.8	78.1	80.6	85.2	80.7	77.5	86.5	92.8	87.1	84.4	96.8	99.3	97.9			
85	40.1	42.2	43.9	37.2	33.2	33.0	37.5	32.4	36.8	38.2	44.7	40.6	42.1	46.0	53.0	47.8			
90	1.55	1.79	2.00	1.42	0.89	0.79	0.72	0.69	0.64	1.12	1.56	1.94	2.14	3.11	3.56	3.38			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-07-15

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:8.570m [K=1.0000]
 Remarks: