

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P937304

Luminaire Tested: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

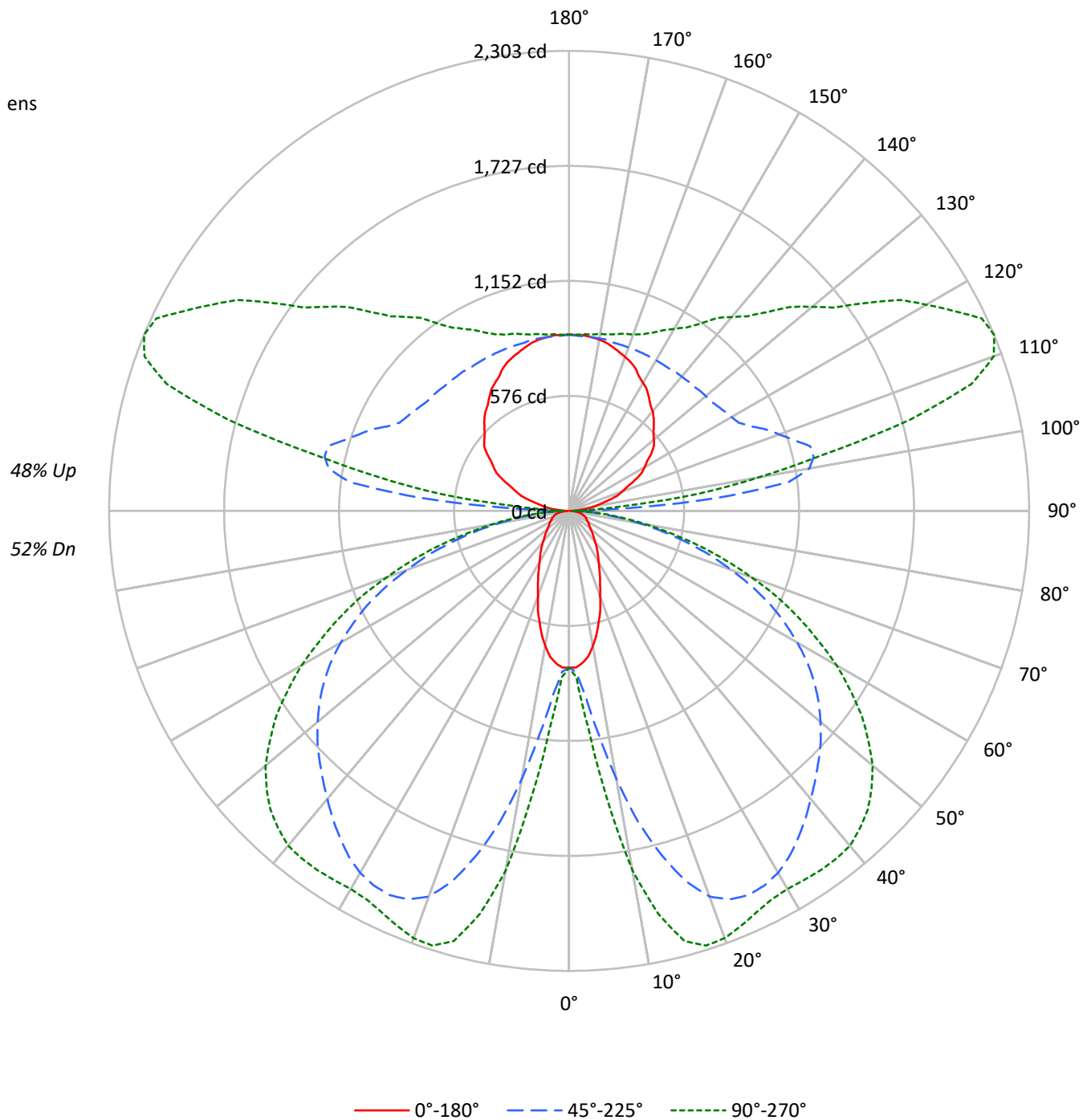
Test Method: LM-79-2019  
Report Number: P937304  
REPORT IS A COMBINATION OF REPORTS P933519 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11794.3 lumens  
Efficiency: N/A  
Efficacy: 115.2 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 102.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P937304  
CATALOG NUMBER: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	47	47	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	39	39	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	32	32	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	27	27	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	23	23	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	20	20	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	18	18	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	16	16	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	14	14	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	12	12	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3642	3642	3642
5°	3558	4209	4895
10°	3227	6135	8115
15°	2743	8015	9799
20°	2233	9289	9986
25°	1863	9720	9783
30°	1571	9782	9765
35°	1389	9619	10017
40°	1210	9408	10278
45°	1096	9254	10319
50°	1005	9115	10147
55°	962	8911	9698
60°	985	8519	8988
65°	1025	7925	8012
70°	1092	6911	6768
75°	1211	5634	5282
80°	1322	3907	3559
85°	1174	2074	1822

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10319 cd/sqm



TEST NUMBER: P937304

CATALOG NUMBER: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.5	0.9
10°-20°	450.0	3.8
20°-30°	787.1	6.7
30°-40°	1013.2	8.6
40°-50°	1131.7	9.6
50°-60°	1083.9	9.2
60°-70°	859.0	7.3
70°-80°	505.1	4.3
80°-90°	143.7	1.2
90°-100°	430.0	3.6
100°-110°	1130.6	9.6
110°-120°	1172.3	9.9
120°-130°	940.3	8.0
130°-140°	737.8	6.3
140°-150°	566.3	4.8
150°-160°	407.8	3.5
160°-170°	249.5	2.1
170°-180°	84.3	0.7
0°-30°	1338.6	11.3
0°-40°	2351.8	19.9
0°-60°	4567.4	38.7
0°-90°	6075.3	51.5
90°-120°	2732.9	23.2
90°-150°	4977.3	42.2
90°-180°	5719.0	48.5
0°-180°	11794.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	765	820	924	1045	1083	71
15°	573	1058	1782	2160	2228	159
25°	366	1199	2122	2216	2218	169
35°	247	1146	1999	2112	2196	154
45°	169	914	1767	2024	2115	131
55°	121	580	1499	1741	1789	110
65°	96	308	1113	1252	1270	95
75°	71	189	611	671	674	74
85°	25	58	152	167	169	27
90°	6	17	45	22	22	7
95°	57	223	741	382	260	63
105°	204	308	1250	1898	1770	216
115°	362	439	1001	1997	2280	357
125°	503	564	911	1539	1815	447
135°	600	660	882	1242	1408	464
145°	696	740	871	1060	1143	436
155°	786	808	871	956	984	361
165°	848	860	871	905	916	239
175°	882	882	877	888	888	84
180°	882	882	882	882	882	



TEST NUMBER: P937304

CATALOG NUMBER: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9
2.5°	784.9	784.9	790.0	792.5	797.5	800.0	805.1	810.1	825.3	827.8	832.9
5°	764.7	774.8	807.6	820.2	855.6	903.5	923.7	956.5	1024.6	1044.9	1057.5
7.5°	734.4	757.1	837.9	858.1	946.4	1072.6	1125.6	1196.2	1304.8	1357.8	1400.7
10°	686.5	734.4	878.3	926.3	1070.1	1261.8	1360.3	1458.8	1622.7	1696.0	1723.7
12.5°	633.5	711.7	921.2	986.8	1193.8	1473.9	1592.5	1701.0	1887.7	1986.2	2001.3
15°	572.9	678.9	961.6	1057.5	1325.0	1650.5	1781.7	1915.5	2089.6	2160.3	2178.0
17.5°	519.9	653.7	999.4	1100.4	1425.9	1809.5	1943.3	2054.3	2195.6	2243.6	2256.3
20°	454.3	613.3	1024.6	1155.8	1531.9	1925.7	2054.3	2140.2	2236.0	2266.3	2271.4
22.5°	406.4	570.3	1039.8	1176.1	1602.6	1996.3	2104.8	2172.9	2238.6	2248.6	2251.2
25°	366.0	522.4	1037.2	1198.8	1663.1	2039.2	2122.5	2172.9	2210.8	2215.9	2215.9
27.5°	328.0	469.4	1027.2	1203.9	1708.6	2049.3	2114.9	2150.3	2167.9	2178.0	2178.0
30°	295.3	419.0	1001.9	1193.8	1728.7	2039.2	2092.2	2109.9	2127.5	2142.6	2150.3
32.5°	270.1	371.0	964.1	1173.5	1731.3	2014.0	2051.8	2061.9	2087.2	2122.5	2135.1
35°	247.3	323.1	921.2	1145.8	1716.1	1973.6	1998.8	2008.9	2059.4	2112.4	2130.0
37.5°	224.6	287.7	865.6	1097.9	1693.4	1925.7	1943.3	1961.0	2039.2	2102.2	2122.5
40°	201.9	257.5	800.0	1044.9	1658.1	1867.6	1882.7	1910.5	2014.0	2087.2	2107.3
42.5°	184.2	232.2	729.3	989.3	1612.7	1802.0	1824.7	1865.0	1983.6	2061.9	2084.7
45°	169.1	206.9	653.7	913.6	1554.6	1733.8	1766.7	1822.1	1948.3	2024.0	2044.3
47.5°	153.9	189.3	575.4	835.3	1491.5	1665.7	1708.6	1771.7	1900.4	1973.6	1991.3
50°	141.3	171.6	497.2	752.1	1423.4	1592.5	1643.0	1708.6	1839.8	1908.0	1930.6
52.5°	131.2	156.4	424.0	668.8	1345.1	1516.7	1574.8	1643.0	1766.7	1832.3	1847.4
55°	121.1	143.8	360.9	580.4	1264.4	1436.0	1499.1	1564.8	1685.9	1741.3	1751.5
57.5°	116.1	133.8	307.9	497.2	1178.6	1345.1	1415.8	1476.4	1590.0	1632.9	1643.0
60°	108.5	126.2	267.5	426.5	1085.3	1259.4	1319.9	1380.5	1476.4	1511.8	1519.3
62.5°	100.9	121.1	237.2	358.4	989.3	1158.4	1219.0	1274.5	1355.2	1380.5	1390.6
65°	95.9	116.1	214.5	307.9	890.9	1052.4	1113.0	1160.9	1226.5	1251.8	1256.9
67.5°	90.8	111.1	196.8	265.0	792.5	946.4	991.9	1037.2	1087.7	1113.0	1115.5
70°	83.3	106.0	181.7	234.7	691.5	825.3	863.1	911.1	951.5	964.1	971.6
72.5°	78.2	98.5	171.6	212.0	588.0	709.2	744.5	772.3	807.6	820.2	820.2
75°	70.7	88.3	161.5	189.3	482.1	580.4	610.7	638.5	666.3	671.4	663.7
77.5°	63.1	78.2	138.8	159.0	376.1	459.4	484.6	499.7	522.4	527.4	530.0
80°	53.0	68.2	108.5	123.7	272.6	338.2	355.8	368.4	388.7	388.7	393.7
82.5°	40.4	53.0	78.2	88.3	184.2	232.2	247.3	254.9	267.5	267.5	267.5
85°	25.2	32.9	50.5	58.1	111.1	141.3	151.5	153.9	164.1	166.6	166.6
87.5°	12.6	17.7	32.9	35.3	58.1	73.2	73.2	78.2	78.2	75.7	73.2
90°	5.9	10.7	15.5	16.6	26.1	38.7	45.0	40.0	30.0	22.5	22.5
92.5°	23.7	64.0	104.3	114.3	160.7	222.5	253.5	222.1	159.5	112.5	108.0
95°	56.8	130.5	204.2	222.6	395.3	625.5	740.7	661.0	501.5	381.9	368.3
97.5°	98.3	163.3	228.3	244.6	532.5	916.4	1108.4	1057.9	957.2	881.7	855.9
100°	130.3	189.2	248.2	262.9	582.5	1008.5	1221.4	1225.2	1232.5	1238.1	1207.3
102.5°	157.5	212.5	267.5	281.2	605.3	1037.4	1253.4	1317.6	1446.1	1542.4	1516.1
105°	203.7	250.3	296.8	308.5	622.3	1040.7	1249.9	1393.8	1681.7	1897.6	1883.5
107.5°	251.1	294.5	337.9	348.8	625.4	994.3	1178.9	1379.6	1781.2	2082.4	2085.8
110°	283.1	322.2	361.4	371.2	620.7	953.3	1119.6	1344.1	1793.0	2129.7	2144.5



TEST NUMBER: P937304

CATALOG NUMBER: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	314.4	351.7	389.1	398.4	620.8	917.5	1065.8	1295.6	1755.0	2099.6	2122.2
115°	361.8	396.2	430.7	439.3	626.6	876.3	1001.2	1222.5	1665.1	1997.1	2028.5
117.5°	408.5	439.9	471.2	479.0	638.3	850.6	956.8	1156.5	1556.0	1855.6	1890.3
120°	435.8	465.2	494.7	502.0	647.7	841.9	939.1	1121.6	1486.6	1760.3	1794.1
122.5°	462.4	492.2	521.9	529.4	661.3	837.3	925.4	1089.8	1418.5	1664.9	1698.3
125°	503.3	530.4	557.4	564.2	679.7	833.6	910.6	1050.2	1329.4	1538.8	1569.5
127.5°	536.4	563.8	591.1	598.0	698.1	831.5	898.2	1018.0	1257.7	1437.6	1463.4
130°	554.2	583.6	613.1	620.5	711.5	832.9	893.5	1000.2	1213.6	1373.7	1397.6
132.5°	572.5	602.0	631.5	638.9	722.4	833.6	889.3	984.8	1175.9	1319.1	1340.6
135°	599.7	626.6	653.5	660.2	734.2	832.9	882.2	962.3	1122.2	1242.2	1260.7
137.5°	627.6	654.2	680.7	687.4	752.0	838.0	881.0	948.6	1083.9	1185.3	1200.4
140°	650.7	675.2	699.6	705.7	762.8	838.9	876.9	935.3	1052.1	1139.8	1153.9
142.5°	668.5	691.1	713.8	719.4	771.9	841.9	876.9	928.2	1030.8	1107.8	1119.9
145°	695.7	715.5	735.2	740.1	783.8	841.9	871.0	913.0	996.9	1059.9	1069.0
147.5°	722.9	742.1	761.4	766.2	801.1	847.7	871.0	904.0	970.0	1019.6	1027.2
150°	740.7	758.1	775.5	779.8	810.1	850.7	871.0	898.8	954.6	996.4	1002.7
152.5°	759.0	772.2	785.4	788.6	816.0	852.6	871.0	894.7	942.4	978.1	982.8
155°	786.3	796.0	805.7	808.2	829.1	857.0	871.0	889.9	927.8	956.2	959.3
157.5°	806.4	815.9	825.3	827.7	842.1	861.3	871.0	885.7	915.2	937.2	939.4
160°	820.1	827.4	834.8	836.6	848.0	863.3	871.0	883.6	908.9	927.8	929.0
162.5°	833.6	839.2	844.7	846.1	854.4	865.4	871.0	881.7	903.0	918.9	920.0
165°	848.4	853.4	858.4	859.7	863.4	868.5	871.0	878.6	893.9	905.3	906.6
167.5°	862.1	864.5	866.9	867.4	870.6	874.8	876.9	881.8	891.9	899.4	899.9
170°	871.0	873.3	875.7	876.3	876.5	876.8	876.9	881.8	891.9	899.4	899.4
172.5°	875.7	876.2	876.8	876.9	876.9	876.9	876.9	880.8	888.7	894.6	894.2
175°	882.2	882.2	882.2	882.2	880.4	878.0	876.9	879.4	884.4	888.2	888.2
177.5°	882.2	882.2	882.2	882.2	880.8	879.0	878.0	880.0	883.9	886.9	886.4
180°	882.2	882.2	882.2	882.2	882.2	882.2	882.2	882.2	882.2	882.2	882.2



TEST NUMBER: P937304

CATALOG NUMBER: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	784.9	784.9
2.5°	837.9	832.9
5°	1077.6	1082.7
7.5°	1451.1	1448.6
10°	1804.5	1827.2
12.5°	2061.9	2067.0
15°	2218.4	2228.5
17.5°	2278.9	2281.5
20°	2281.5	2276.4
22.5°	2253.7	2248.6
25°	2220.9	2218.4
27.5°	2190.6	2193.2
30°	2178.0	2185.6
32.5°	2178.0	2190.6
35°	2183.0	2195.6
37.5°	2180.6	2195.6
40°	2170.4	2188.1
42.5°	2142.6	2155.2
45°	2099.8	2114.9
47.5°	2044.3	2054.3
50°	1973.6	1983.6
52.5°	1885.3	1887.7
55°	1779.3	1789.4
57.5°	1665.7	1668.2
60°	1539.5	1547.1
62.5°	1405.8	1405.8
65°	1264.4	1269.5
67.5°	1118.0	1130.6
70°	969.1	971.6
72.5°	822.7	822.7
75°	671.4	673.8
77.5°	527.4	527.4
80°	391.2	393.7
82.5°	270.1	275.1
85°	169.1	169.1
87.5°	78.2	70.7
90°	22.5	22.5
92.5°	90.2	72.2
95°	314.2	260.0
97.5°	752.6	649.5
100°	1084.5	961.6
102.5°	1410.8	1305.6
105°	1826.8	1770.3
107.5°	2099.5	2113.1
110°	2203.5	2262.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2212.6	2303.2
115°	2154.0	2279.5
117.5°	2029.6	2168.8
120°	1929.4	2064.6
122.5°	1831.7	1965.1
125°	1692.5	1815.4
127.5°	1567.2	1670.9
130°	1493.3	1589.1
132.5°	1426.4	1512.1
135°	1334.6	1408.5
137.5°	1261.0	1321.5
140°	1210.6	1267.1
142.5°	1168.6	1217.3
145°	1105.9	1142.8
147.5°	1057.7	1088.2
150°	1027.4	1052.1
152.5°	1001.4	1020.1
155°	971.7	984.0
157.5°	948.1	956.8
160°	934.1	939.1
162.5°	924.8	929.6
165°	911.5	916.5
167.5°	902.0	904.1
170°	899.4	899.4
172.5°	892.4	890.5
175°	888.2	888.2
177.5°	884.3	882.2
180°	882.2	882.2



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference 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	5.63	6.55	6.57	7.51	8.75	18.81	19.73	19.75	20.69	21.93
	3H	6.34	7.17	7.29	8.13	9.40	20.66	21.48	21.60	22.45	23.71
	4H	6.64	7.42	7.60	8.40	9.67	21.30	22.08	22.26	23.05	24.33
	6H	6.90	7.62	7.87	8.59	9.88	21.74	22.46	22.71	23.43	24.72
	8H	6.97	7.65	7.95	8.65	9.94	21.86	22.54	22.84	23.54	24.83
	12H	6.99	7.64	7.97	8.63	9.94	21.93	22.58	22.91	23.57	24.88
4H	2H	12.85	13.63	13.82	14.61	15.88	19.09	19.87	20.06	20.84	22.12
	3H	14.43	15.08	15.40	16.08	17.37	21.14	21.80	22.12	22.80	24.09
	4H	14.52	15.12	15.51	16.12	17.43	21.91	22.51	22.90	23.50	24.82
	6H	14.54	15.05	15.54	16.07	17.39	22.45	22.97	23.45	23.99	25.30
	8H	14.52	15.00	15.52	16.01	17.34	22.62	23.10	23.62	24.11	25.44
	12H	14.48	14.91	15.50	15.94	17.27	22.71	23.15	23.73	24.18	25.51
8H	4H	15.97	16.46	16.97	17.47	18.80	21.98	22.46	22.98	23.47	24.80
	6H	16.22	16.62	17.24	17.67	19.00	22.61	23.01	23.63	24.06	25.39
	8H	16.24	16.59	17.27	17.63	18.98	22.83	23.18	23.86	24.22	25.57
	12H	16.21	16.52	17.25	17.55	18.94	22.98	23.29	24.02	24.32	25.71
12H	4H	16.12	16.56	17.14	17.58	18.92	21.93	22.37	22.95	23.40	24.73
	6H	16.48	16.83	17.51	17.87	19.22	22.59	22.95	23.63	23.99	25.33
	8H	16.55	16.86	17.59	17.90	19.28	22.83	23.14	23.86	24.17	25.56