

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: P937492

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937492  
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-8-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

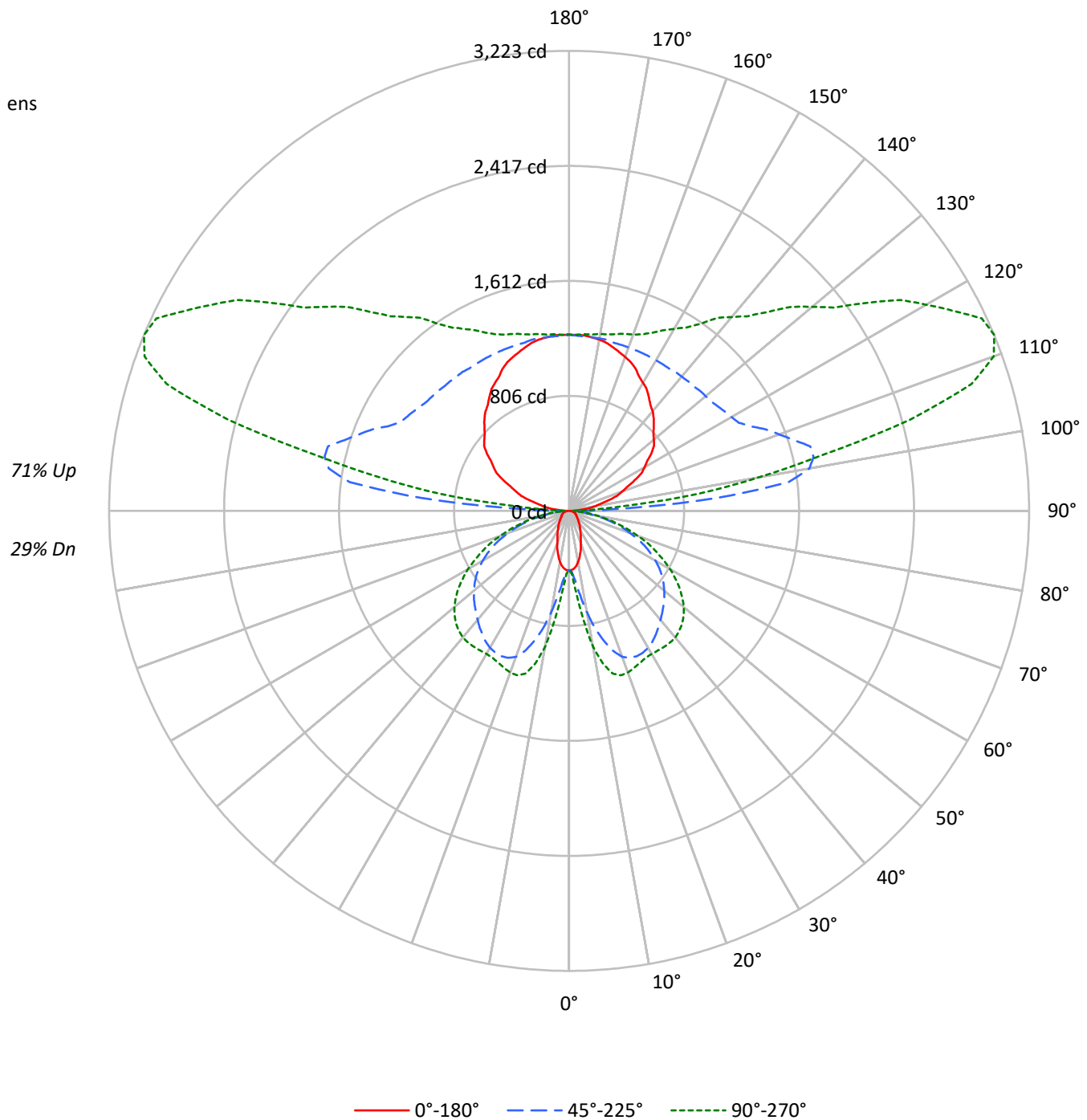
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11222.0 lumens  
Efficiency: N/A  
Efficacy: 136.2 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: Semi-Indirect

Input Watts (W): 82.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

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CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-8-2700K

### 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	0
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

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

	0°	45°	90°
0°	1927	1927	1927
5°	1883	2228	2591
10°	1708	3248	4295
15°	1452	4243	5187
20°	1182	4917	5286
25°	986	5145	5179
30°	831	5178	5169
35°	735	5092	5302
40°	641	4980	5441
45°	580	4898	5462
50°	532	4825	5372
55°	509	4717	5134
60°	522	4510	4757
65°	543	4195	4241
70°	578	3658	3583
75°	641	2983	2796
80°	701	2068	1884
85°	619	1098	964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5462 cd/sqm



TEST NUMBER: P937492

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-8-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.7	0.5
10°-20°	238.2	2.1
20°-30°	416.6	3.7
30°-40°	536.3	4.8
40°-50°	599.1	5.3
50°-60°	573.8	5.1
60°-70°	454.7	4.1
70°-80°	267.4	2.4
80°-90°	79.0	0.7
90°-100°	601.8	5.4
100°-110°	1582.1	14.1
110°-120°	1640.5	14.6
120°-130°	1315.9	11.7
130°-140°	1032.5	9.2
140°-150°	792.5	7.1
150°-160°	570.7	5.1
160°-170°	349.2	3.1
170°-180°	118.0	1.1
0°-30°	708.6	6.3
0°-40°	1244.9	11.1
0°-60°	2417.7	21.5
0°-90°	3218.8	28.7
90°-120°	3824.4	34.1
90°-150°	6965.3	62.1
90°-180°	8003.0	71.3
0°-180°	11222.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	405	434	489	553	573	37
15°	303	560	943	1144	1180	84
25°	194	635	1124	1173	1174	89
35°	131	606	1058	1118	1162	82
45°	90	484	935	1071	1120	69
55°	64	307	794	922	947	58
65°	51	163	589	663	672	50
75°	37	100	323	355	357	39
85°	13	31	80	88	90	14
90°	8	23	63	32	32	8
95°	80	312	1036	534	364	88
105°	285	432	1749	2656	2477	302
115°	506	615	1401	2795	3190	500
125°	704	790	1274	2154	2540	625
135°	839	924	1234	1738	1971	649
145°	974	1036	1219	1483	1599	610
155°	1100	1131	1219	1338	1377	506
165°	1187	1203	1219	1267	1283	335
175°	1234	1234	1227	1243	1243	117
180°	1234	1234	1234	1234	1234	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4
2.5°	415.4	415.4	418.1	419.5	422.1	423.5	426.2	428.9	436.8	438.1	440.8
5°	404.8	410.2	427.5	434.2	452.9	478.3	488.9	506.3	542.4	553.1	559.8
7.5°	388.7	400.8	443.5	454.2	501.0	567.7	595.8	633.3	690.6	718.7	741.4
10°	363.3	388.7	464.9	490.3	566.4	667.9	720.1	772.2	859.0	897.7	912.4
12.5°	335.4	376.7	487.6	522.3	631.9	780.2	843.0	900.4	999.3	1051.4	1059.3
15°	303.3	359.4	509.0	559.8	701.4	873.7	943.2	1013.9	1106.2	1143.5	1152.9
17.5°	275.2	346.0	529.1	582.5	754.8	957.9	1028.7	1087.4	1162.2	1187.6	1194.3
20°	240.4	324.6	542.4	611.8	810.9	1019.3	1087.4	1132.9	1183.6	1199.7	1202.4
22.5°	215.0	301.9	550.4	622.5	848.3	1056.8	1114.1	1150.3	1184.9	1190.3	1191.6
25°	193.7	276.5	549.1	634.6	880.4	1079.5	1123.5	1150.3	1170.3	1173.0	1173.0
27.5°	173.7	248.5	543.7	637.2	904.5	1084.7	1119.5	1138.2	1147.6	1152.9	1152.9
30°	156.3	221.8	530.4	631.9	915.1	1079.5	1107.5	1116.8	1126.2	1134.2	1138.2
32.5°	142.9	196.4	510.4	621.2	916.4	1066.0	1086.1	1091.4	1104.8	1123.5	1130.2
35°	130.9	171.0	487.6	606.5	908.5	1044.7	1058.1	1063.4	1090.1	1118.2	1127.5
37.5°	118.9	152.3	458.3	581.2	896.4	1019.3	1028.7	1038.0	1079.5	1112.8	1123.5
40°	106.9	136.3	423.5	553.1	877.7	988.6	996.6	1011.3	1066.0	1104.8	1115.5
42.5°	97.5	122.9	386.0	523.7	853.7	953.9	965.9	987.2	1050.1	1091.4	1103.5
45°	89.5	109.6	346.0	483.6	822.9	917.8	935.1	964.5	1031.4	1071.4	1082.1
47.5°	81.5	100.2	304.6	442.2	789.5	881.8	904.5	937.8	1006.0	1044.7	1054.1
50°	74.8	90.8	263.1	398.1	753.5	843.0	869.7	904.5	973.9	1009.9	1022.0
52.5°	69.4	82.9	224.4	354.0	712.0	802.9	833.7	869.7	935.1	969.9	977.9
55°	64.1	76.2	191.0	307.3	669.3	760.1	793.5	828.3	892.4	921.8	927.2
57.5°	61.5	70.8	162.9	263.1	623.9	712.0	749.5	781.6	841.6	864.3	869.7
60°	57.5	66.8	141.6	225.8	574.5	666.6	698.7	730.8	781.6	800.2	804.3
62.5°	53.5	64.1	125.6	189.7	523.7	613.2	645.2	674.7	717.4	730.8	736.1
65°	50.8	61.5	113.5	162.9	471.6	557.1	589.1	614.5	649.3	662.6	665.3
67.5°	48.1	58.8	104.2	140.2	419.5	501.0	525.0	549.1	575.8	589.1	590.4
70°	44.1	56.1	96.2	124.2	366.0	436.8	456.9	482.3	503.7	510.4	514.3
72.5°	41.4	52.1	90.8	112.2	311.2	375.4	394.1	408.8	427.5	434.2	434.2
75°	37.4	46.7	85.5	100.2	255.2	307.3	323.3	337.9	352.7	355.4	351.4
77.5°	33.4	41.4	73.5	84.2	199.1	243.1	256.5	264.5	276.5	279.2	280.6
80°	28.1	36.1	57.5	65.4	144.3	179.0	188.3	195.0	205.8	205.8	208.4
82.5°	21.4	28.1	41.4	46.7	97.5	122.9	130.9	135.0	141.6	141.6	141.6
85°	13.3	17.3	26.7	30.7	58.8	74.8	80.2	81.5	86.9	88.1	88.1
87.5°	6.7	9.4	17.3	18.7	30.7	38.7	38.7	41.4	41.4	40.0	38.7
90°	8.3	14.9	21.5	23.2	36.5	54.1	62.9	56.0	41.9	31.5	31.5
92.5°	33.2	89.5	145.9	160.0	224.8	311.3	354.6	310.8	223.2	157.5	151.2
95°	79.6	182.7	285.8	311.5	553.2	875.4	1036.5	925.0	701.8	534.5	515.5
97.5°	137.5	228.5	319.5	342.2	745.2	1282.4	1551.1	1480.6	1339.5	1233.7	1197.7
100°	182.3	264.7	347.3	367.9	815.0	1411.2	1709.3	1714.5	1724.8	1732.5	1689.5
102.5°	220.4	297.3	374.3	393.5	847.0	1451.7	1754.1	1843.9	2023.7	2158.4	2121.6
105°	285.1	350.2	415.3	431.7	870.8	1456.4	1749.1	1950.5	2353.3	2655.5	2635.7
107.5°	351.3	412.0	472.8	488.0	875.3	1391.5	1649.7	1930.6	2492.6	2914.0	2918.8
110°	396.0	450.9	505.8	519.5	868.6	1334.0	1566.8	1880.9	2509.1	2980.3	3000.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	439.9	492.2	544.6	557.7	868.9	1283.9	1491.4	1812.9	2455.8	2938.1	2969.8
115°	506.3	554.5	602.8	614.8	876.9	1226.4	1401.1	1710.8	2330.2	2794.8	2838.7
117.5°	571.7	615.5	659.4	670.3	893.2	1190.3	1338.9	1618.4	2177.5	2596.7	2645.4
120°	609.9	651.1	692.3	702.6	906.5	1178.3	1314.1	1569.5	2080.2	2463.3	2510.6
122.5°	647.1	688.7	730.4	740.7	925.5	1171.8	1295.0	1525.0	1984.9	2329.9	2376.7
125°	704.3	742.2	780.2	789.6	951.2	1166.6	1274.3	1469.7	1860.4	2153.5	2196.5
127.5°	750.7	788.9	827.3	836.8	976.9	1163.6	1257.0	1424.7	1760.1	2011.7	2048.0
130°	775.5	816.7	858.0	868.3	995.6	1165.4	1250.3	1399.6	1698.3	1922.3	1955.7
132.5°	801.2	842.4	883.7	894.0	1010.8	1166.6	1244.5	1378.2	1645.5	1846.0	1876.0
135°	839.3	876.9	914.5	923.9	1027.5	1165.5	1234.5	1346.5	1570.4	1738.3	1764.2
137.5°	878.3	915.4	952.7	961.9	1052.3	1172.7	1232.8	1327.5	1516.8	1658.7	1680.0
140°	910.5	944.8	979.1	987.6	1067.4	1173.9	1227.1	1308.8	1472.4	1595.0	1614.8
142.5°	935.4	967.1	998.8	1006.7	1080.2	1178.1	1227.1	1298.9	1442.5	1550.3	1567.3
145°	973.6	1001.2	1028.9	1035.7	1096.8	1178.2	1218.8	1277.6	1395.0	1483.1	1496.0
147.5°	1011.6	1038.5	1065.4	1072.2	1121.1	1186.2	1218.8	1265.0	1357.4	1426.8	1437.4
150°	1036.5	1060.8	1085.1	1091.2	1133.7	1190.4	1218.8	1257.8	1335.9	1394.5	1403.2
152.5°	1062.2	1080.7	1099.1	1103.7	1142.0	1193.2	1218.8	1252.2	1318.8	1368.8	1375.4
155°	1100.3	1113.9	1127.6	1131.0	1160.2	1199.3	1218.8	1245.3	1298.4	1338.1	1342.4
157.5°	1128.5	1141.7	1155.1	1158.3	1178.5	1205.4	1218.8	1239.4	1280.7	1311.6	1314.6
160°	1147.6	1157.9	1168.2	1170.8	1186.8	1208.1	1218.8	1236.5	1271.9	1298.4	1300.2
162.5°	1166.6	1174.4	1182.2	1184.0	1195.6	1211.0	1218.8	1233.7	1263.5	1285.9	1287.6
165°	1187.3	1194.3	1201.3	1203.1	1208.3	1215.3	1218.8	1229.5	1250.9	1266.9	1268.7
167.5°	1206.4	1209.6	1213.0	1213.8	1218.2	1224.1	1227.1	1234.0	1248.1	1258.5	1259.2
170°	1218.8	1222.1	1225.5	1226.3	1226.6	1226.9	1227.1	1234.0	1248.1	1258.5	1258.5
172.5°	1225.5	1226.2	1226.9	1227.1	1227.1	1227.1	1227.1	1232.6	1243.7	1252.0	1251.4
175°	1234.5	1234.5	1234.5	1234.5	1232.1	1228.8	1227.1	1230.6	1237.5	1242.8	1242.8
177.5°	1234.5	1234.5	1234.5	1234.5	1232.6	1230.1	1228.8	1231.6	1237.0	1241.2	1240.5
180°	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	415.4	415.4
2.5°	443.5	440.8
5°	570.4	573.1
7.5°	768.1	766.8
10°	955.2	967.2
12.5°	1091.4	1094.1
15°	1174.3	1179.7
17.5°	1206.4	1207.6
20°	1207.6	1205.0
22.5°	1193.0	1190.3
25°	1175.6	1174.3
27.5°	1159.5	1160.9
30°	1152.9	1157.0
32.5°	1152.9	1159.5
35°	1155.6	1162.2
37.5°	1154.3	1162.2
40°	1148.9	1158.2
42.5°	1134.2	1140.9
45°	1111.5	1119.5
47.5°	1082.1	1087.4
50°	1044.7	1050.1
52.5°	997.9	999.3
55°	941.8	947.2
57.5°	881.8	883.1
60°	814.9	818.9
62.5°	744.1	744.1
65°	669.3	672.0
67.5°	591.8	598.5
70°	513.0	514.3
72.5°	435.6	435.6
75°	355.4	356.7
77.5°	279.2	279.2
80°	207.1	208.4
82.5°	142.9	145.6
85°	89.5	89.5
87.5°	41.4	37.4
90°	31.5	31.5
92.5°	126.2	101.1
95°	439.6	363.7
97.5°	1053.3	908.9
100°	1517.6	1345.6
102.5°	1974.3	1827.0
105°	2556.5	2477.4
107.5°	2938.0	2957.1
110°	3083.4	3165.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3096.4	3223.1
115°	3014.3	3190.0
117.5°	2840.2	3035.0
120°	2700.0	2889.2
122.5°	2563.3	2750.0
125°	2368.4	2540.4
127.5°	2193.1	2338.2
130°	2089.8	2223.9
132.5°	1996.1	2116.1
135°	1867.7	1971.2
137.5°	1764.6	1849.4
140°	1693.9	1773.1
142.5°	1635.4	1703.6
145°	1547.6	1599.1
147.5°	1480.2	1522.9
150°	1437.7	1472.4
152.5°	1401.5	1427.6
155°	1359.7	1377.1
157.5°	1326.8	1338.9
160°	1307.2	1314.1
162.5°	1294.2	1300.9
165°	1275.7	1282.6
167.5°	1262.2	1265.2
170°	1258.5	1258.5
172.5°	1248.8	1246.2
175°	1242.8	1242.8
177.5°	1237.5	1234.5
180°	1234.5	1234.5



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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	0.91	1.63	2.02	2.74	4.28	14.09	14.81	15.21	15.92	17.47
	3H	1.60	2.25	2.73	3.37	4.93	15.92	16.56	17.04	17.68	19.24
	4H	1.90	2.51	3.03	3.63	5.19	16.56	17.17	17.69	18.29	19.86
	6H	2.14	2.70	3.28	3.83	5.40	16.98	17.54	18.12	18.67	20.25
	8H	2.20	2.74	3.35	3.88	5.45	17.10	17.63	18.24	18.77	20.34
	12H	2.21	2.72	3.36	3.86	5.45	17.16	17.67	18.31	18.80	20.40
4H	2H	8.11	8.72	9.25	9.84	11.41	14.35	14.96	15.49	16.08	17.65
	3H	9.66	10.17	10.81	11.32	12.90	16.38	16.89	17.53	18.04	19.62
	4H	9.75	10.22	10.90	11.36	12.96	17.14	17.61	18.29	18.75	20.34
	6H	9.75	10.16	10.91	11.32	12.90	17.67	18.07	18.83	19.23	20.82
	8H	9.73	10.10	10.88	11.25	12.86	17.83	18.21	18.98	19.36	20.96
	12H	9.68	10.02	10.85	11.18	12.79	17.91	18.26	19.09	19.42	21.03
8H	4H	11.18	11.56	12.34	12.71	14.32	17.19	17.56	18.34	18.72	20.32
	6H	11.42	11.73	12.59	12.92	14.53	17.81	18.12	18.99	19.32	20.92
	8H	11.43	11.71	12.62	12.88	14.50	18.03	18.30	19.21	19.47	21.09
	12H	11.40	11.63	12.58	12.80	14.46	18.16	18.40	19.35	19.57	21.23
12H	4H	11.32	11.66	12.49	12.82	14.43	17.13	17.47	18.31	18.64	20.25
	6H	11.68	11.95	12.86	13.12	14.74	17.79	18.06	18.97	19.24	20.86
	8H	11.74	11.98	12.92	13.15	14.80	18.01	18.25	19.20	19.42	21.08