

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: P937544

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937544
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

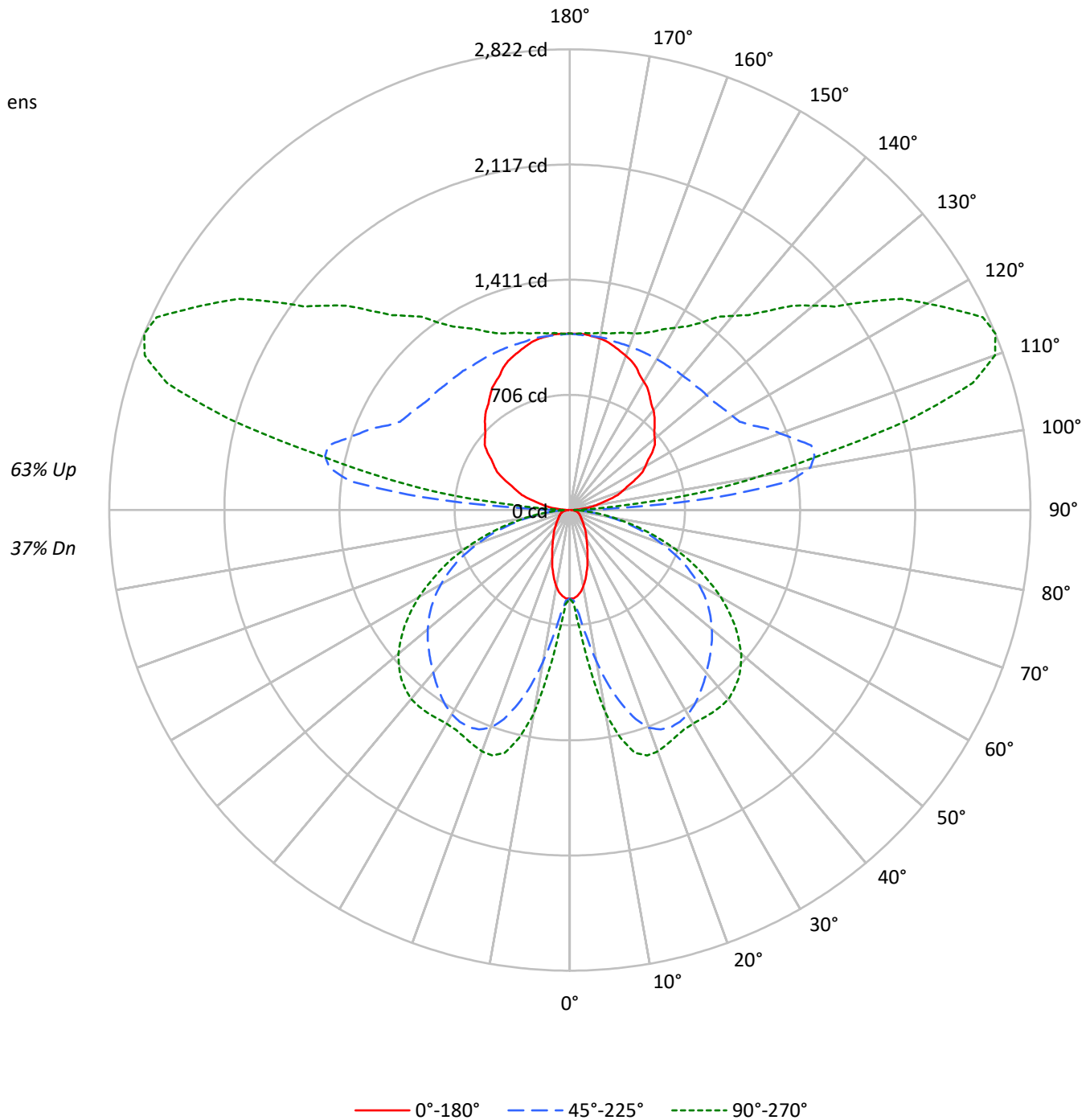
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11207.4 lumens
Efficiency: N/A
Efficacy: 113.9 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): 98.4
Input Voltage (V): NR
Input Current (A_{in}): 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-075D-92765-1D-UNV-STD-W-8-3000K

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2517	2517	2517
5°	2459	2908	3383
10°	2230	4240	5608
15°	1895	5540	6772
20°	1543	6420	6901
25°	1287	6717	6761
30°	1086	6760	6749
35°	960	6648	6923
40°	836	6502	7103
45°	758	6395	7131
50°	695	6299	7013
55°	665	6159	6702
60°	681	5887	6211
65°	709	5476	5537
70°	755	4776	4678
75°	836	3894	3650
80°	913	2700	2460
85°	810	1432	1259

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7131 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	0.6
10°-20°	311.0	2.8
20°-30°	543.9	4.9
30°-40°	700.2	6.2
40°-50°	782.1	7.0
50°-60°	749.1	6.7
60°-70°	593.6	5.3
70°-80°	349.1	3.1
80°-90°	101.1	0.9
90°-100°	526.9	4.7
100°-110°	1385.2	12.4
110°-120°	1436.3	12.8
120°-130°	1152.1	10.3
130°-140°	904.0	8.1
140°-150°	693.8	6.2
150°-160°	499.7	4.5
160°-170°	305.7	2.7
170°-180°	103.3	0.9
0°-30°	925.1	8.3
0°-40°	1625.3	14.5
0°-60°	3156.5	28.2
0°-90°	4200.3	37.5
90°-120°	3348.4	29.9
90°-150°	6098.3	54.4
90°-180°	7007.0	62.5
0°-180°	11207.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	528	567	638	722	748	49
15°	396	731	1231	1493	1540	110
25°	253	828	1467	1531	1533	116
35°	171	792	1381	1460	1517	107
45°	117	631	1221	1399	1462	90
55°	84	401	1036	1204	1237	76
65°	66	213	769	865	877	66
75°	49	131	422	464	466	51
85°	17	40	105	115	117	18
90°	7	20	55	28	28	7
95°	70	273	908	468	318	77
105°	250	378	1531	2325	2169	265
115°	443	538	1227	2447	2793	438
125°	617	691	1116	1885	2224	547
135°	735	809	1081	1522	1726	569
145°	852	907	1067	1298	1400	534
155°	963	990	1067	1172	1206	443
165°	1040	1053	1067	1109	1123	293
175°	1081	1081	1074	1088	1088	103
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	542.4	542.4	542.4	542.4	542.4	542.4	542.4	542.4	542.4	542.4	542.4
2.5°	542.4	542.4	545.9	547.6	551.1	552.9	556.4	559.8	570.3	572.1	575.5
5°	528.5	535.4	558.1	566.8	591.2	624.4	638.3	661.0	708.1	722.0	730.8
7.5°	507.5	523.2	579.0	593.0	654.0	741.2	777.9	826.7	901.7	938.3	968.0
10°	474.4	507.5	606.9	640.1	739.5	872.0	940.1	1008.2	1121.5	1172.1	1191.3
12.5°	437.8	491.8	636.6	681.9	824.9	1018.6	1100.6	1175.6	1304.7	1372.7	1383.1
15°	395.9	469.2	664.5	730.8	915.6	1140.7	1231.4	1323.8	1444.2	1493.0	1505.2
17.5°	359.3	451.7	690.7	760.4	985.4	1250.6	1343.0	1419.8	1517.4	1550.6	1559.3
20°	313.9	423.8	708.1	798.8	1058.7	1330.8	1419.8	1479.1	1545.3	1566.3	1569.7
22.5°	280.8	394.2	718.6	812.7	1107.6	1379.6	1454.6	1501.7	1547.1	1554.1	1555.8
25°	252.9	361.0	716.8	828.4	1149.4	1409.3	1466.8	1501.7	1527.9	1531.4	1531.4
27.5°	226.7	324.4	709.8	831.9	1180.8	1416.3	1461.6	1486.0	1498.2	1505.2	1505.2
30°	204.1	289.5	692.4	824.9	1194.8	1409.3	1445.9	1458.1	1470.3	1480.8	1486.0
32.5°	186.6	256.4	666.2	811.0	1196.5	1391.9	1418.0	1425.0	1442.4	1466.8	1475.6
35°	170.9	223.2	636.6	791.8	1186.1	1363.9	1381.4	1388.4	1423.2	1459.9	1472.1
37.5°	155.2	198.8	598.2	758.7	1170.4	1330.8	1343.0	1355.2	1409.3	1452.9	1466.8
40°	139.5	177.9	552.9	722.0	1145.9	1290.7	1301.2	1320.3	1391.9	1442.4	1456.4
42.5°	127.3	160.5	504.0	683.7	1114.5	1245.4	1261.0	1289.0	1370.9	1425.0	1440.7
45°	116.9	143.0	451.7	631.4	1074.4	1198.3	1220.9	1259.3	1346.5	1398.8	1412.8
47.5°	106.4	130.8	397.6	577.3	1030.8	1151.2	1180.8	1224.4	1313.4	1363.9	1376.2
50°	97.7	118.6	343.6	519.7	983.7	1100.6	1135.5	1180.8	1271.5	1318.6	1334.3
52.5°	90.7	108.1	293.0	462.2	929.6	1048.3	1088.4	1135.5	1220.9	1266.3	1276.7
55°	83.7	99.4	249.4	401.1	873.8	992.5	1036.1	1081.4	1165.1	1203.5	1210.5
57.5°	80.2	92.4	212.8	343.6	814.5	929.6	978.4	1020.4	1098.9	1128.5	1135.5
60°	75.0	87.2	184.9	294.7	749.9	870.3	912.1	954.0	1020.4	1044.8	1050.0
62.5°	69.8	83.7	163.9	247.7	683.7	800.5	842.4	880.8	936.6	954.0	961.0
65°	66.3	80.2	148.2	212.8	615.7	727.3	769.1	802.3	847.6	865.1	868.5
67.5°	62.8	76.7	136.0	183.1	547.6	654.0	685.4	716.8	751.7	769.1	770.9
70°	57.6	73.3	125.6	162.2	477.9	570.3	596.5	629.6	657.5	666.2	671.5
72.5°	54.1	68.0	118.6	146.5	406.4	490.1	514.5	533.7	558.1	566.8	566.8
75°	48.8	61.0	111.6	130.8	333.1	401.1	422.1	441.2	460.4	463.9	458.7
77.5°	43.6	54.1	95.9	109.9	259.9	317.4	334.9	345.3	361.0	364.5	366.3
80°	36.6	47.1	75.0	85.5	188.4	233.7	245.9	254.6	268.6	268.6	272.1
82.5°	27.9	36.6	54.1	61.0	127.3	160.5	170.9	176.2	184.9	184.9	184.9
85°	17.4	22.7	34.9	40.1	76.7	97.7	104.6	106.4	113.4	115.1	115.1
87.5°	8.7	12.2	22.7	24.4	40.1	50.6	50.6	54.1	54.1	52.3	50.6
90°	7.2	13.1	18.8	20.3	31.9	47.4	55.1	49.0	36.7	27.6	27.6
92.5°	29.0	78.4	127.8	140.0	196.8	272.6	310.4	272.1	195.4	137.9	132.4
95°	69.7	159.9	250.2	272.8	484.3	766.4	907.5	809.9	614.4	467.9	451.4
97.5°	120.4	200.0	279.7	299.6	652.5	1122.8	1358.0	1296.3	1172.8	1080.2	1048.6
100°	159.6	231.8	304.1	322.1	713.6	1235.6	1496.6	1501.1	1510.1	1516.9	1479.2
102.5°	193.0	260.3	327.7	344.5	741.6	1271.0	1535.7	1614.4	1771.8	1889.8	1857.5
105°	249.6	306.6	363.6	377.9	762.4	1275.1	1531.4	1707.7	2060.4	2325.0	2307.7
107.5°	307.6	360.8	414.0	427.3	766.3	1218.3	1444.3	1690.4	2182.4	2551.3	2555.5
110°	346.7	394.8	442.8	454.9	760.5	1168.0	1371.8	1646.8	2196.8	2609.4	2627.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	385.2	431.0	476.8	488.3	760.8	1124.1	1305.8	1587.3	2150.2	2572.4	2600.1
115°	443.3	485.5	527.8	538.3	767.7	1073.7	1226.7	1497.9	2040.2	2446.9	2485.4
117.5°	500.5	538.9	577.3	586.9	782.0	1042.2	1172.3	1417.0	1906.4	2273.5	2316.1
120°	533.9	570.0	606.2	615.1	793.6	1031.6	1150.6	1374.2	1821.3	2156.7	2198.1
122.5°	566.6	603.0	639.5	648.5	810.3	1025.9	1133.8	1335.2	1737.9	2039.9	2080.8
125°	616.6	649.8	683.1	691.3	832.8	1021.4	1115.7	1286.8	1628.9	1885.4	1923.1
127.5°	657.3	690.7	724.3	732.7	855.3	1018.8	1100.5	1247.4	1541.1	1761.3	1793.1
130°	679.0	715.1	751.2	760.2	871.7	1020.4	1094.7	1225.4	1486.9	1683.0	1712.3
132.5°	701.5	737.6	773.7	782.7	885.0	1021.4	1089.6	1206.6	1440.7	1616.2	1642.5
135°	734.9	767.7	800.7	808.9	899.6	1020.5	1080.9	1178.9	1374.9	1522.0	1544.6
137.5°	769.0	801.5	834.1	842.2	921.3	1026.7	1079.4	1162.2	1328.0	1452.3	1470.9
140°	797.2	827.2	857.2	864.7	934.6	1027.8	1074.3	1145.9	1289.1	1396.5	1413.8
142.5°	819.0	846.7	874.5	881.4	945.7	1031.4	1074.3	1137.2	1263.0	1357.3	1372.2
145°	852.4	876.6	900.8	906.8	960.3	1031.5	1067.1	1118.6	1221.4	1298.5	1309.8
147.5°	885.7	909.3	932.8	938.7	981.6	1038.6	1067.1	1107.6	1188.5	1249.2	1258.5
150°	907.5	928.8	950.1	955.4	992.6	1042.3	1067.1	1101.3	1169.7	1220.9	1228.5
152.5°	930.0	946.2	962.3	966.3	999.9	1044.7	1067.1	1096.3	1154.7	1198.4	1204.2
155°	963.3	975.3	987.2	990.2	1015.8	1050.0	1067.1	1090.3	1136.8	1171.6	1175.3
157.5°	988.0	999.6	1011.3	1014.2	1031.8	1055.3	1067.1	1085.2	1121.3	1148.4	1151.0
160°	1004.8	1013.8	1022.8	1025.1	1039.1	1057.8	1067.1	1082.6	1113.6	1136.8	1138.4
162.5°	1021.4	1028.2	1035.0	1036.7	1046.8	1060.3	1067.1	1080.2	1106.3	1125.9	1127.4
165°	1039.6	1045.7	1051.8	1053.3	1058.0	1064.1	1067.1	1076.4	1095.2	1109.2	1110.8
167.5°	1056.2	1059.1	1062.1	1062.7	1066.6	1071.7	1074.3	1080.5	1092.7	1101.9	1102.5
170°	1067.1	1070.0	1073.0	1073.6	1073.9	1074.2	1074.3	1080.5	1092.7	1101.9	1101.9
172.5°	1073.0	1073.6	1074.2	1074.3	1074.3	1074.3	1074.3	1079.2	1088.9	1096.1	1095.6
175°	1080.9	1080.9	1080.9	1080.9	1078.7	1075.8	1074.3	1077.4	1083.5	1088.1	1088.1
177.5°	1080.9	1080.9	1080.9	1080.9	1079.2	1077.0	1075.8	1078.3	1083.1	1086.7	1086.1
180°	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	542.4	542.4
2.5°	579.0	575.5
5°	744.7	748.2
7.5°	1002.9	1001.2
10°	1247.1	1262.8
12.5°	1425.0	1428.5
15°	1533.1	1540.1
17.5°	1575.0	1576.7
20°	1576.7	1573.2
22.5°	1557.5	1554.1
25°	1534.9	1533.1
27.5°	1513.9	1515.7
30°	1505.2	1510.5
32.5°	1505.2	1513.9
35°	1508.7	1517.4
37.5°	1507.0	1517.4
40°	1500.0	1512.2
42.5°	1480.8	1489.5
45°	1451.2	1461.6
47.5°	1412.8	1419.8
50°	1363.9	1370.9
52.5°	1302.9	1304.7
55°	1229.7	1236.6
57.5°	1151.2	1152.9
60°	1064.0	1069.2
62.5°	971.4	971.4
65°	873.8	877.3
67.5°	772.6	781.3
70°	669.7	671.5
72.5°	568.6	568.6
75°	463.9	465.7
77.5°	364.5	364.5
80°	270.3	272.1
82.5°	186.6	190.1
85°	116.9	116.9
87.5°	54.1	48.8
90°	27.6	27.6
92.5°	110.5	88.5
95°	384.9	318.5
97.5°	922.2	795.8
100°	1328.7	1178.1
102.5°	1728.5	1599.6
105°	2238.3	2169.0
107.5°	2572.3	2589.1
110°	2699.6	2771.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2711.0	2821.9
115°	2639.1	2793.0
117.5°	2486.7	2657.3
120°	2363.9	2529.6
122.5°	2244.3	2407.7
125°	2073.6	2224.2
127.5°	1920.1	2047.2
130°	1829.7	1947.1
132.5°	1747.6	1852.7
135°	1635.2	1725.8
137.5°	1545.0	1619.2
140°	1483.1	1552.4
142.5°	1431.9	1491.5
145°	1355.0	1400.1
147.5°	1295.9	1333.3
150°	1258.8	1289.1
152.5°	1227.0	1249.9
155°	1190.5	1205.7
157.5°	1161.6	1172.3
160°	1144.5	1150.6
162.5°	1133.1	1139.0
165°	1116.9	1123.0
167.5°	1105.1	1107.7
170°	1101.9	1101.9
172.5°	1093.4	1091.1
175°	1088.1	1088.1
177.5°	1083.5	1080.9
180°	1080.9	1080.9



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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	2.94	3.73	4.00	4.79	6.23	16.12	16.91	17.17	17.97	19.41
	3H	3.64	4.35	4.70	5.42	6.87	17.96	18.66	19.02	19.73	21.19
	4H	3.94	4.61	5.01	5.68	7.14	18.60	19.27	19.67	20.34	21.80
	6H	4.18	4.80	5.27	5.88	7.35	19.02	19.64	20.11	20.72	22.19
	8H	4.25	4.84	5.34	5.93	7.40	19.14	19.73	20.23	20.82	22.29
	12H	4.27	4.82	5.36	5.91	7.40	19.21	19.77	20.30	20.85	22.34
4H	2H	10.15	10.82	11.23	11.89	13.35	16.39	17.06	17.47	18.13	19.59
	3H	11.71	12.27	12.80	13.37	14.84	18.43	18.99	19.51	20.08	21.56
	4H	11.80	12.32	12.89	13.40	14.90	19.19	19.70	20.28	20.79	22.29
	6H	11.81	12.25	12.91	13.36	14.85	19.72	20.17	20.82	21.28	22.77
	8H	11.78	12.20	12.88	13.30	14.80	19.88	20.30	20.99	21.40	22.91
	12H	11.74	12.11	12.85	13.23	14.74	19.97	20.35	21.09	21.46	22.98
8H	4H	13.24	13.65	14.34	14.76	16.26	19.24	19.66	20.34	20.76	22.27
	6H	13.48	13.82	14.60	14.97	16.47	19.87	20.21	20.99	21.36	22.86
	8H	13.50	13.80	14.62	14.92	16.44	20.09	20.39	21.22	21.51	23.04
	12H	13.46	13.72	14.59	14.85	16.41	20.23	20.49	21.36	21.62	23.17
12H	4H	13.38	13.75	14.50	14.87	16.38	19.19	19.57	20.31	20.68	22.19
	6H	13.74	14.04	14.87	15.16	16.68	19.85	20.15	20.98	21.28	22.80
	8H	13.80	14.07	14.94	15.19	16.75	20.08	20.34	21.21	21.46	23.02