

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: P937421

Luminaire Tested: SQ4-FB-100U-050D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937421
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

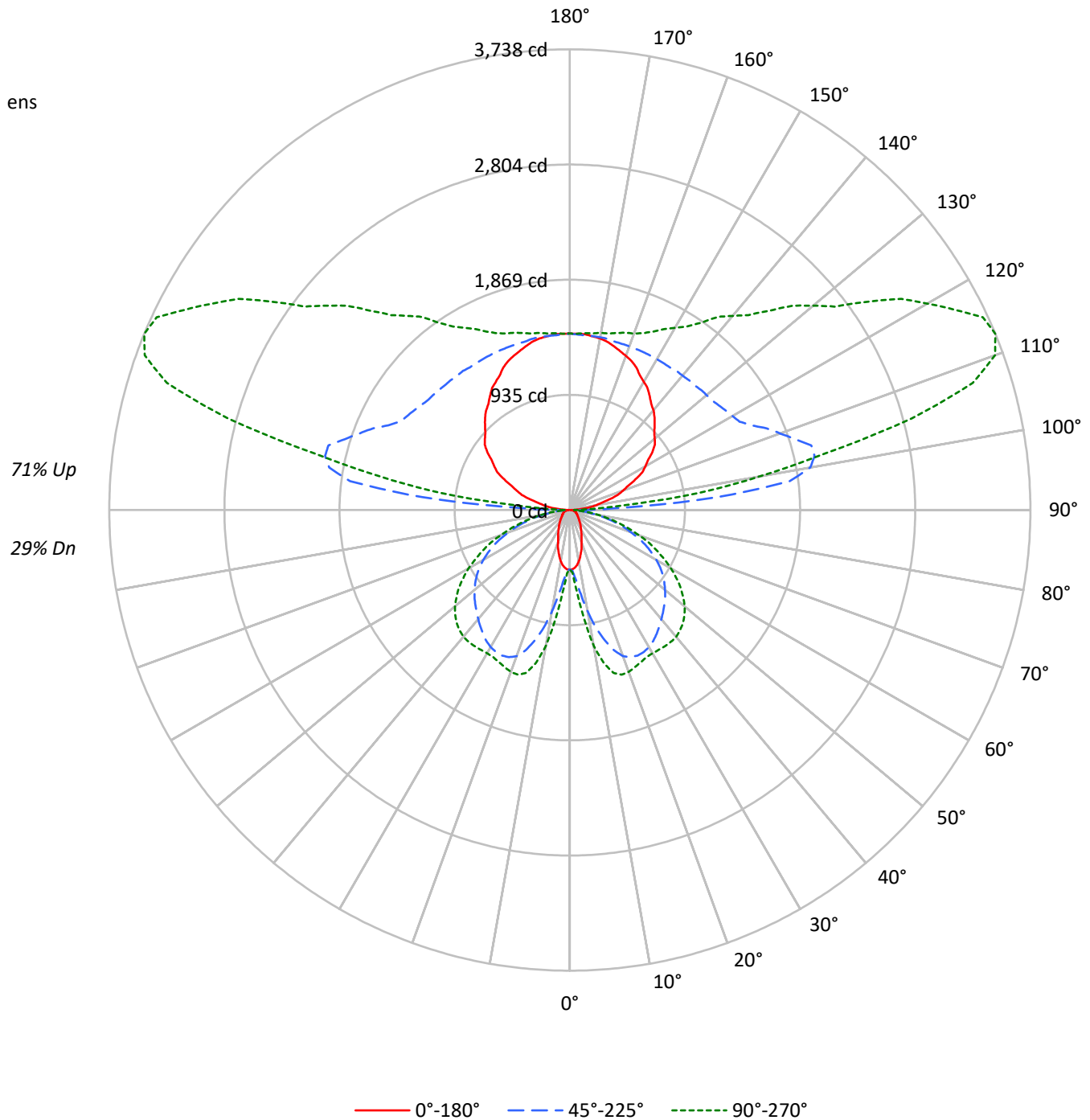
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13013.8 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 123.6
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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1491	1491	1491
5°	1457	1723	2003
10°	1322	2512	3321
15°	1124	3283	4010
20°	915	3805	4087
25°	764	3983	4004
30°	644	4009	3996
35°	570	3944	4100
40°	497	3858	4207
45°	450	3796	4223
50°	414	3740	4153
55°	396	3658	3969
60°	406	3499	3678
65°	424	3257	3279
70°	452	2842	2770
75°	503	2319	2161
80°	554	1610	1457
85°	502	855	745

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4223 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	0.5
10°-20°	276.2	2.1
20°-30°	483.2	3.7
30°-40°	622.0	4.8
40°-50°	694.8	5.3
50°-60°	665.4	5.1
60°-70°	527.4	4.1
70°-80°	310.1	2.4
80°-90°	91.6	0.7
90°-100°	697.8	5.4
100°-110°	1834.7	14.1
110°-120°	1902.4	14.6
120°-130°	1525.9	11.7
130°-140°	1197.3	9.2
140°-150°	919.0	7.1
150°-160°	661.8	5.1
160°-170°	404.9	3.1
170°-180°	136.8	1.1
0°-30°	821.8	6.3
0°-40°	1443.8	11.1
0°-60°	2804.0	21.5
0°-90°	3733.0	28.7
90°-120°	4434.9	34.1
90°-150°	8077.2	62.1
90°-180°	9281.0	71.3
0°-180°	13013.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	470	504	567	641	665	43
15°	352	649	1094	1326	1368	98
25°	225	736	1303	1360	1362	103
35°	152	703	1227	1297	1348	95
45°	104	561	1084	1242	1298	80
55°	74	356	920	1069	1098	68
65°	59	189	683	768	779	58
75°	43	116	375	412	414	45
85°	16	36	93	102	104	16
90°	10	27	73	36	36	9
95°	92	361	1202	620	422	102
105°	331	501	2028	3080	2873	350
115°	587	713	1625	3241	3699	580
125°	817	916	1478	2497	2946	725
135°	973	1071	1432	2016	2286	753
145°	1129	1201	1413	1720	1854	707
155°	1276	1312	1413	1552	1597	586
165°	1377	1395	1413	1469	1487	389
175°	1432	1432	1423	1441	1441	136
180°	1432	1432	1432	1432	1432	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	481.9	481.9	484.9	486.5	489.6	491.1	494.3	497.3	506.7	508.2	511.3
5°	469.5	475.6	495.8	503.5	525.2	554.6	567.0	587.2	629.0	641.4	649.2
7.5°	450.8	464.8	514.4	526.8	581.0	658.5	691.0	734.4	801.0	833.5	859.9
10°	421.4	450.8	539.2	568.6	656.9	774.7	835.1	895.5	996.2	1041.2	1058.2
12.5°	388.8	436.9	565.5	605.8	732.8	904.8	977.7	1044.3	1158.9	1219.4	1228.6
15°	351.7	416.8	590.3	649.2	813.4	1013.2	1093.9	1175.9	1282.9	1326.2	1337.1
17.5°	319.2	401.2	613.5	675.5	875.4	1110.9	1193.0	1261.2	1348.0	1377.4	1385.2
20°	278.9	376.5	629.0	709.6	940.5	1182.2	1261.2	1313.9	1372.8	1391.3	1394.4
22.5°	249.5	350.1	638.3	722.0	983.8	1225.5	1292.1	1334.0	1374.3	1380.5	1382.0
25°	224.7	320.7	636.8	736.0	1021.0	1251.9	1303.0	1334.0	1357.2	1360.4	1360.4
27.5°	201.4	288.2	630.6	739.0	1048.9	1258.1	1298.4	1320.0	1330.9	1337.1	1337.1
30°	181.3	257.2	615.1	732.8	1061.3	1251.9	1284.4	1295.3	1306.1	1315.4	1320.0
32.5°	165.8	227.8	591.8	720.4	1062.8	1236.4	1259.6	1265.8	1281.3	1303.0	1310.8
35°	151.8	198.4	565.5	703.4	1053.6	1211.6	1227.1	1233.3	1264.3	1296.8	1307.6
37.5°	137.9	176.6	531.5	674.0	1039.6	1182.2	1193.0	1203.8	1251.9	1290.6	1303.0
40°	124.0	158.0	491.1	641.4	1017.9	1146.5	1155.8	1172.9	1236.4	1281.3	1293.7
42.5°	113.1	142.5	447.8	607.4	990.1	1106.3	1120.2	1145.0	1217.8	1265.8	1279.7
45°	103.8	127.0	401.2	560.9	954.4	1064.4	1084.5	1118.7	1196.1	1242.5	1254.9
47.5°	94.5	116.2	353.3	512.8	915.7	1022.6	1048.9	1087.6	1166.6	1211.6	1222.5
50°	86.8	105.3	305.2	461.7	873.8	977.7	1008.6	1048.9	1129.5	1171.3	1185.3
52.5°	80.5	96.1	260.3	410.6	825.8	931.2	966.8	1008.6	1084.5	1124.8	1134.1
55°	74.4	88.3	221.5	356.4	776.2	881.6	920.3	960.6	1035.0	1069.1	1075.2
57.5°	71.3	82.1	189.0	305.2	723.6	825.8	869.2	906.4	976.1	1002.5	1008.6
60°	66.6	77.5	164.2	261.9	666.2	773.2	810.3	847.5	906.4	928.1	932.7
62.5°	62.0	74.4	145.6	220.0	607.4	711.2	748.4	782.4	832.0	847.5	853.7
65°	58.9	71.3	131.7	189.0	546.9	646.1	683.3	712.7	753.0	768.5	771.5
67.5°	55.7	68.1	120.8	162.7	486.5	581.0	608.9	636.8	667.7	683.3	684.8
70°	51.1	65.1	111.6	144.1	424.5	506.7	529.9	559.3	584.1	591.8	596.5
72.5°	48.0	60.4	105.3	130.1	361.0	435.4	457.1	474.1	495.8	503.5	503.5
75°	43.4	54.2	99.2	116.2	295.9	356.4	374.9	392.0	409.0	412.1	407.5
77.5°	38.7	48.0	85.2	97.6	230.8	282.0	297.5	306.8	320.7	323.8	325.3
80°	32.6	41.8	66.6	75.9	167.3	207.6	218.4	226.2	238.6	238.6	241.7
82.5°	24.8	32.6	48.0	54.2	113.1	142.5	151.8	156.5	164.2	164.2	164.2
85°	15.5	20.2	31.0	35.7	68.1	86.8	92.9	94.5	100.7	102.3	102.3
87.5°	7.8	10.9	20.2	21.7	35.7	45.0	45.0	48.0	48.0	46.5	45.0
90°	9.6	17.3	24.9	26.9	42.3	62.8	73.0	64.9	48.7	36.5	36.5
92.5°	38.4	103.7	169.1	185.4	260.7	361.1	411.3	360.4	258.8	182.6	175.3
95°	92.2	211.8	331.4	361.3	641.5	1015.2	1202.0	1072.6	813.8	619.7	597.7
97.5°	159.5	265.0	370.4	396.9	864.1	1487.1	1798.6	1716.9	1553.3	1430.7	1388.8
100°	211.4	307.0	402.6	426.6	945.1	1636.5	1982.2	1988.2	2000.2	2009.1	1959.3
102.5°	255.6	344.8	434.0	456.4	982.3	1683.5	2034.1	2138.3	2346.7	2503.0	2460.2
105°	330.6	406.1	481.7	500.6	1009.9	1688.8	2028.3	2262.0	2729.1	3079.5	3056.5
107.5°	407.4	477.9	548.3	566.0	1014.9	1613.6	1913.0	2238.9	2890.5	3379.2	3384.8
110°	459.3	522.9	586.5	602.4	1007.2	1547.0	1816.9	2181.2	2909.7	3456.1	3480.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	510.2	570.9	631.5	646.6	1007.6	1488.9	1729.5	2102.3	2847.9	3407.1	3443.8
115°	587.0	643.0	698.9	712.9	1016.9	1422.1	1624.8	1983.9	2702.2	3240.9	3291.8
117.5°	663.0	713.8	764.6	777.3	1035.8	1380.4	1552.7	1876.8	2525.1	3011.2	3067.7
120°	707.2	755.0	802.9	814.8	1051.2	1366.4	1523.9	1820.0	2412.3	2856.5	2911.4
122.5°	750.4	798.7	846.9	859.0	1073.3	1359.0	1501.8	1768.5	2301.8	2701.9	2756.0
125°	816.7	860.7	904.7	915.7	1103.0	1352.9	1477.8	1704.3	2157.4	2497.2	2547.0
127.5°	870.5	914.9	959.3	970.4	1132.8	1349.3	1457.6	1652.1	2041.1	2332.9	2374.9
130°	899.4	947.2	995.0	1006.9	1154.6	1351.5	1449.9	1623.1	1969.4	2229.2	2268.0
132.5°	929.2	977.0	1024.8	1036.7	1172.2	1352.8	1443.1	1598.1	1908.2	2140.8	2175.6
135°	973.4	1016.9	1060.4	1071.3	1191.4	1351.6	1431.7	1561.5	1821.0	2015.8	2045.8
137.5°	1018.5	1061.6	1104.7	1115.5	1220.2	1359.9	1429.7	1539.5	1759.0	1923.6	1948.2
140°	1056.0	1095.7	1135.4	1145.3	1237.9	1361.3	1423.0	1517.7	1707.4	1849.6	1872.6
142.5°	1084.8	1121.5	1158.2	1167.4	1252.6	1366.1	1423.0	1506.3	1672.8	1797.7	1817.4
145°	1129.0	1161.0	1193.0	1201.0	1271.8	1366.2	1413.4	1481.5	1617.7	1719.9	1734.8
147.5°	1173.2	1204.4	1235.5	1243.3	1300.0	1375.6	1413.4	1467.0	1574.2	1654.6	1667.0
150°	1202.0	1230.2	1258.3	1265.4	1314.8	1380.5	1413.4	1458.7	1549.2	1617.1	1627.1
152.5°	1231.8	1253.1	1274.5	1279.8	1324.3	1383.7	1413.4	1452.1	1529.3	1587.3	1594.8
155°	1276.0	1291.8	1307.6	1311.5	1345.5	1390.8	1413.4	1444.1	1505.6	1551.7	1556.7
157.5°	1308.6	1324.0	1339.4	1343.3	1366.7	1397.9	1413.4	1437.3	1485.1	1521.0	1524.5
160°	1330.7	1342.7	1354.7	1357.7	1376.2	1401.0	1413.4	1433.9	1474.9	1505.6	1507.6
162.5°	1352.8	1361.7	1370.8	1373.0	1386.5	1404.4	1413.4	1430.7	1465.2	1491.2	1493.1
165°	1376.8	1384.9	1393.1	1395.1	1401.2	1409.3	1413.4	1425.8	1450.5	1469.1	1471.1
167.5°	1398.9	1402.8	1406.6	1407.6	1412.7	1419.6	1423.0	1431.1	1447.4	1459.5	1460.4
170°	1413.4	1417.3	1421.1	1422.0	1422.3	1422.7	1423.0	1431.1	1447.4	1459.5	1459.5
172.5°	1421.0	1421.9	1422.7	1423.0	1423.0	1423.0	1423.0	1429.4	1442.2	1451.8	1451.1
175°	1431.7	1431.7	1431.7	1431.7	1428.7	1424.9	1423.0	1427.0	1435.1	1441.2	1441.2
177.5°	1431.7	1431.7	1431.7	1431.7	1429.4	1426.4	1424.9	1428.1	1434.5	1439.3	1438.4
180°	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	481.9	481.9
2.5°	514.4	511.3
5°	661.6	664.7
7.5°	890.9	889.4
10°	1107.8	1121.7
12.5°	1265.8	1268.9
15°	1361.9	1368.1
17.5°	1399.1	1400.6
20°	1400.6	1397.6
22.5°	1383.5	1380.5
25°	1363.4	1361.9
27.5°	1344.8	1346.4
30°	1337.1	1341.7
32.5°	1337.1	1344.8
35°	1340.2	1348.0
37.5°	1338.6	1348.0
40°	1332.4	1343.3
42.5°	1315.4	1323.2
45°	1289.1	1298.4
47.5°	1254.9	1261.2
50°	1211.6	1217.8
52.5°	1157.4	1158.9
55°	1092.3	1098.5
57.5°	1022.6	1024.1
60°	945.1	949.7
62.5°	863.0	863.0
65°	776.2	779.3
67.5°	686.4	694.1
70°	595.0	596.5
72.5°	505.1	505.1
75°	412.1	413.6
77.5°	323.8	323.8
80°	240.2	241.7
82.5°	165.8	168.9
85°	103.8	103.8
87.5°	48.0	43.4
90°	36.5	36.5
92.5°	146.2	117.2
95°	509.7	421.8
97.5°	1221.5	1054.1
100°	1759.8	1560.4
102.5°	2289.4	2118.7
105°	2964.7	2872.9
107.5°	3407.0	3429.2
110°	3575.6	3671.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3590.7	3737.7
115°	3495.5	3699.2
117.5°	3293.6	3519.5
120°	3130.9	3350.4
122.5°	2972.4	3189.0
125°	2746.4	2945.9
127.5°	2543.2	2711.5
130°	2423.4	2578.9
132.5°	2314.8	2454.0
135°	2165.8	2285.8
137.5°	2046.4	2144.6
140°	1964.4	2056.2
142.5°	1896.4	1975.4
145°	1794.6	1854.4
147.5°	1716.5	1766.0
150°	1667.3	1707.4
152.5°	1625.2	1655.5
155°	1576.8	1596.9
157.5°	1538.6	1552.7
160°	1515.7	1523.9
162.5°	1500.8	1508.5
165°	1479.2	1487.3
167.5°	1463.8	1467.2
170°	1459.5	1459.5
172.5°	1448.1	1445.1
175°	1441.2	1441.2
177.5°	1435.0	1431.7
180°	1431.7	1431.7



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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	0.02	0.74	1.14	1.85	3.40	13.22	13.93	14.33	15.05	16.59
	3H	0.72	1.36	1.84	2.48	4.04	15.05	15.69	16.17	16.81	18.37
	4H	1.01	1.62	2.14	2.74	4.31	15.69	16.30	16.82	17.42	18.99
	6H	1.25	1.81	2.39	2.94	4.51	16.12	16.68	17.26	17.81	19.38
	8H	1.31	1.85	2.46	2.99	4.56	16.24	16.77	17.38	17.91	19.48
	12H	1.33	1.83	2.48	2.97	4.56	16.30	16.81	17.45	17.95	19.54
4H	2H	7.23	7.84	8.37	8.96	10.53	13.47	14.08	14.61	15.20	16.77
	3H	8.78	9.29	9.93	10.44	12.02	15.51	16.02	16.66	17.17	18.75
	4H	8.87	9.34	10.02	10.48	12.08	16.27	16.74	17.42	17.88	19.48
	6H	8.87	9.28	10.03	10.44	12.02	16.81	17.21	17.96	18.37	19.96
	8H	8.85	9.22	10.00	10.37	11.98	16.97	17.35	18.12	18.50	20.10
	12H	8.79	9.14	9.97	10.30	11.91	17.06	17.40	18.23	18.56	20.17
8H	4H	10.31	10.68	11.46	11.83	13.44	16.32	16.70	17.48	17.85	19.45
	6H	10.54	10.85	11.72	12.05	13.65	16.95	17.26	18.12	18.45	20.05
	8H	10.56	10.83	11.74	12.00	13.62	17.17	17.44	18.35	18.61	20.23
	12H	10.52	10.76	11.70	11.93	13.58	17.31	17.55	18.49	18.72	20.37
12H	4H	10.44	10.79	11.62	11.95	13.56	16.26	16.61	17.44	17.77	19.38
	6H	10.80	11.07	11.98	12.24	13.87	16.93	17.20	18.11	18.37	19.99
	8H	10.86	11.10	12.05	12.27	13.92	17.15	17.39	18.34	18.56	20.22