

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: P937593

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937593
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-B2750-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

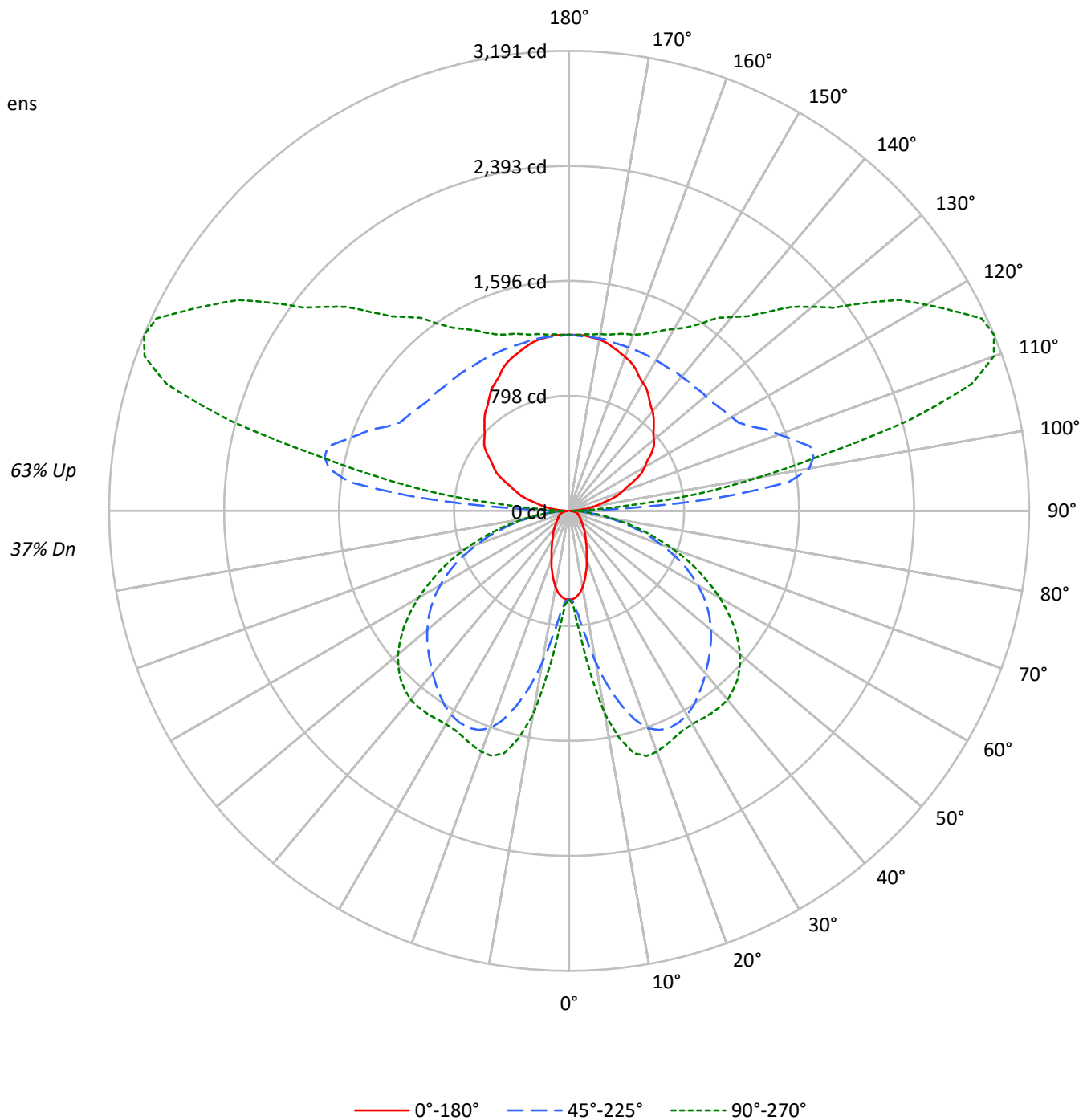
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12672.1 lumens
Efficiency: N/A
Efficacy: 128.8 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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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°	2845	2845	2845
5°	2780	3289	3825
10°	2522	4794	6341
15°	2143	6264	7657
20°	1745	7258	7803
25°	1455	7596	7645
30°	1227	7644	7631
35°	1085	7517	7828
40°	946	7352	8032
45°	856	7231	8063
50°	785	7122	7930
55°	753	6963	7578
60°	770	6657	7023
65°	801	6192	6260
70°	854	5400	5288
75°	945	4403	4127
80°	1033	3054	2781
85°	918	1620	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8063 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	0.6
10°-20°	351.6	2.8
20°-30°	615.0	4.9
30°-40°	791.7	6.2
40°-50°	884.3	7.0
50°-60°	847.0	6.7
60°-70°	671.2	5.3
70°-80°	394.7	3.1
80°-90°	114.3	0.9
90°-100°	595.8	4.7
100°-110°	1566.2	12.4
110°-120°	1624.0	12.8
120°-130°	1302.7	10.3
130°-140°	1022.1	8.1
140°-150°	784.5	6.2
150°-160°	565.0	4.5
160°-170°	345.7	2.7
170°-180°	116.8	0.9
0°-30°	1046.0	8.3
0°-40°	1837.7	14.5
0°-60°	3569.1	28.2
0°-90°	4749.3	37.5
90°-120°	3786.0	29.9
90°-150°	6895.3	54.4
90°-180°	7923.0	62.5
0°-180°	12672.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	613	613	613	613	613	
5°	598	641	722	816	846	55
15°	448	826	1392	1688	1741	125
25°	286	937	1659	1732	1734	132
35°	193	895	1562	1651	1716	121
45°	132	714	1380	1582	1653	102
55°	95	454	1172	1361	1398	86
65°	75	241	870	978	992	74
75°	55	148	477	525	526	58
85°	20	45	118	130	132	21
90°	8	23	62	31	31	8
95°	79	308	1026	529	360	87
105°	282	427	1732	2629	2452	299
115°	501	609	1387	2767	3158	495
125°	697	782	1262	2132	2515	619
135°	831	915	1222	1721	1951	643
145°	964	1025	1207	1468	1583	604
155°	1089	1120	1207	1325	1363	500
165°	1175	1191	1207	1254	1270	332
175°	1222	1222	1215	1230	1230	116
180°	1222	1222	1222	1222	1222	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3
2.5°	613.3	613.3	617.2	619.2	623.2	625.1	629.1	633.0	644.8	646.8	650.8
5°	597.5	605.4	631.0	640.9	668.5	706.0	721.8	747.4	800.6	816.4	826.3
7.5°	573.9	591.6	654.7	670.5	739.5	838.1	879.5	934.7	1019.5	1060.9	1094.5
10°	536.4	573.9	686.3	723.7	836.1	986.0	1062.9	1139.9	1268.1	1325.3	1347.0
12.5°	495.0	556.1	719.8	771.1	932.8	1151.7	1244.4	1329.2	1475.2	1552.1	1563.9
15°	447.6	530.5	751.3	826.3	1035.3	1289.8	1392.3	1496.8	1632.9	1688.1	1701.9
17.5°	406.2	510.7	780.9	859.8	1114.2	1414.0	1518.5	1605.3	1715.7	1753.2	1763.1
20°	355.0	479.2	800.6	903.2	1197.1	1504.7	1605.3	1672.4	1747.3	1771.0	1774.9
22.5°	317.5	445.7	812.5	919.0	1252.3	1560.0	1644.7	1698.0	1749.3	1757.2	1759.1
25°	285.9	408.2	810.5	936.7	1299.6	1593.5	1658.6	1698.0	1727.6	1731.5	1731.5
27.5°	256.4	366.8	802.6	940.6	1335.1	1601.4	1652.6	1680.2	1694.0	1701.9	1701.9
30°	230.7	327.4	782.9	932.8	1350.9	1593.5	1634.9	1648.7	1662.5	1674.3	1680.2
32.5°	211.0	289.9	753.3	917.0	1352.9	1573.8	1603.3	1611.2	1630.9	1658.6	1668.4
35°	193.3	252.4	719.8	895.3	1341.1	1542.2	1561.9	1569.8	1609.3	1650.7	1664.5
37.5°	175.5	224.8	676.4	857.8	1323.3	1504.7	1518.5	1532.3	1593.5	1642.8	1658.6
40°	157.8	201.1	625.1	816.4	1295.7	1459.4	1471.2	1492.9	1573.8	1630.9	1646.7
42.5°	144.0	181.4	569.9	773.0	1260.2	1408.1	1425.9	1457.4	1550.1	1611.2	1629.0
45°	132.1	161.7	510.7	713.9	1214.9	1354.9	1380.5	1423.9	1522.5	1581.6	1597.4
47.5°	120.3	147.9	449.6	652.7	1165.6	1301.6	1335.1	1384.4	1485.0	1542.2	1556.0
50°	110.4	134.1	388.5	587.7	1112.2	1244.4	1283.9	1335.1	1437.7	1490.9	1508.7
52.5°	102.5	122.3	331.3	522.6	1051.1	1185.3	1230.6	1283.9	1380.5	1431.8	1443.6
55°	94.7	112.4	282.0	453.6	988.0	1122.2	1171.5	1222.7	1317.4	1360.8	1368.7
57.5°	90.7	104.5	240.6	388.5	920.9	1051.1	1106.3	1153.7	1242.5	1276.0	1283.9
60°	84.8	98.6	209.0	333.3	848.0	984.0	1031.4	1078.7	1153.7	1181.3	1187.2
62.5°	78.9	94.7	185.4	280.0	773.0	905.1	952.5	995.9	1059.0	1078.7	1086.6
65°	74.9	90.7	167.6	240.6	696.1	822.3	869.7	907.1	958.4	978.1	982.1
67.5°	71.0	86.8	153.8	207.1	619.2	739.5	775.0	810.5	849.9	869.7	871.6
70°	65.1	82.8	142.0	183.4	540.3	644.8	674.4	711.9	743.4	753.3	759.2
72.5°	61.1	76.9	134.1	165.6	459.5	554.1	581.7	603.4	631.0	640.9	640.9
75°	55.2	69.0	126.2	147.9	376.7	453.6	477.2	498.9	520.6	524.6	518.6
77.5°	49.3	61.1	108.5	124.2	293.8	358.9	378.6	390.5	408.2	412.1	414.1
80°	41.4	53.2	84.8	96.6	213.0	264.2	278.1	287.9	303.7	303.7	307.6
82.5°	31.6	41.4	61.1	69.0	144.0	181.4	193.3	199.2	209.0	209.0	209.0
85°	19.7	25.6	39.4	45.4	86.8	110.4	118.3	120.3	128.2	130.2	130.2
87.5°	9.9	13.8	25.6	27.6	45.4	57.2	57.2	61.1	61.1	59.2	57.2
90°	8.2	14.8	21.3	23.0	36.1	53.5	62.3	55.4	41.5	31.2	31.2
92.5°	32.8	88.6	144.4	158.4	222.5	308.2	351.0	307.6	221.0	155.9	149.7
95°	78.8	180.8	282.9	308.4	547.6	866.6	1026.1	915.7	694.7	529.1	510.4
97.5°	136.2	226.2	316.3	338.8	737.7	1269.6	1535.5	1465.7	1326.1	1221.4	1185.7
100°	180.4	262.1	343.8	364.2	806.8	1397.1	1692.2	1697.3	1707.5	1715.1	1672.6
102.5°	218.2	294.3	370.5	389.6	838.5	1437.1	1736.4	1825.4	2003.4	2136.8	2100.3
105°	282.2	346.7	411.2	427.3	862.1	1441.7	1731.5	1930.9	2329.7	2628.9	2609.3
107.5°	347.8	407.9	468.1	483.1	866.5	1377.5	1633.1	1911.3	2467.6	2884.7	2889.5
110°	392.0	446.4	500.7	514.3	859.9	1320.6	1551.1	1862.1	2483.9	2950.4	2970.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	435.5	487.3	539.1	552.1	860.2	1271.1	1476.4	1794.7	2431.2	2908.6	2940.0
115°	501.2	548.9	596.7	608.7	868.1	1214.1	1387.0	1693.7	2306.8	2766.7	2810.2
117.5°	566.0	609.3	652.7	663.6	884.2	1178.4	1325.5	1602.2	2155.6	2570.6	2618.8
120°	603.7	644.5	685.4	695.5	897.4	1166.4	1300.9	1553.7	2059.4	2438.6	2485.4
122.5°	640.6	681.8	723.0	733.3	916.2	1160.0	1282.0	1509.7	1965.0	2306.5	2352.8
125°	697.2	734.8	772.3	781.7	941.6	1154.9	1261.5	1454.9	1841.7	2131.8	2174.4
127.5°	743.1	781.0	819.0	828.4	967.1	1151.9	1244.3	1410.4	1742.5	1991.5	2027.4
130°	767.7	808.5	849.3	859.6	985.6	1153.7	1237.7	1385.5	1681.2	1903.0	1936.1
132.5°	793.1	834.0	874.8	885.0	1000.7	1154.9	1232.0	1364.3	1629.0	1827.5	1857.1
135°	830.9	868.1	905.3	914.6	1017.2	1153.8	1222.1	1333.0	1554.6	1720.9	1746.5
137.5°	869.5	906.2	943.1	952.3	1041.7	1160.9	1220.5	1314.1	1501.6	1642.1	1663.1
140°	901.4	935.3	969.2	977.7	1056.7	1162.1	1214.8	1295.7	1457.6	1579.0	1598.6
142.5°	926.1	957.4	988.8	996.6	1069.3	1166.2	1214.8	1285.8	1428.0	1534.7	1551.6
145°	963.8	991.1	1018.5	1025.3	1085.8	1166.3	1206.6	1264.7	1381.0	1468.3	1481.0
147.5°	1001.5	1028.1	1054.7	1061.4	1109.8	1174.3	1206.6	1252.3	1343.8	1412.4	1423.0
150°	1026.1	1050.2	1074.2	1080.3	1122.4	1178.5	1206.6	1245.2	1322.5	1380.5	1389.1
152.5°	1051.6	1069.8	1088.1	1092.6	1130.5	1181.2	1206.6	1239.6	1305.6	1355.1	1361.6
155°	1089.2	1102.7	1116.3	1119.6	1148.6	1187.2	1206.6	1232.8	1285.3	1324.7	1328.9
157.5°	1117.1	1130.3	1143.5	1146.7	1166.6	1193.3	1206.6	1227.0	1267.8	1298.5	1301.4
160°	1136.1	1146.3	1156.5	1159.0	1174.9	1196.0	1206.6	1224.1	1259.1	1285.3	1287.1
162.5°	1154.9	1162.6	1170.3	1172.2	1183.6	1198.9	1206.6	1221.4	1250.8	1273.0	1274.7
165°	1175.4	1182.3	1189.2	1191.0	1196.2	1203.1	1206.6	1217.1	1238.3	1254.2	1256.0
167.5°	1194.2	1197.5	1200.8	1201.6	1206.0	1211.8	1214.8	1221.7	1235.6	1245.9	1246.6
170°	1206.6	1209.8	1213.2	1214.0	1214.3	1214.6	1214.8	1221.7	1235.6	1245.9	1245.9
172.5°	1213.2	1213.9	1214.6	1214.8	1214.8	1214.8	1214.8	1220.3	1231.2	1239.4	1238.8
175°	1222.1	1222.1	1222.1	1222.1	1219.7	1216.4	1214.8	1218.2	1225.1	1230.3	1230.3
177.5°	1222.1	1222.1	1222.1	1222.1	1220.3	1217.7	1216.4	1219.2	1224.6	1228.8	1228.1
180°	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	613.3	613.3
2.5°	654.7	650.8
5°	842.0	846.0
7.5°	1134.0	1132.0
10°	1410.1	1427.8
12.5°	1611.2	1615.2
15°	1733.5	1741.4
17.5°	1780.8	1782.8
20°	1782.8	1778.8
22.5°	1761.1	1757.2
25°	1735.5	1733.5
27.5°	1711.8	1713.8
30°	1701.9	1707.9
32.5°	1701.9	1711.8
35°	1705.9	1715.7
37.5°	1703.9	1715.7
40°	1696.0	1709.8
42.5°	1674.3	1684.2
45°	1640.8	1652.6
47.5°	1597.4	1605.3
50°	1542.2	1550.1
52.5°	1473.2	1475.2
55°	1390.4	1398.2
57.5°	1301.6	1303.6
60°	1203.0	1208.9
62.5°	1098.4	1098.4
65°	988.0	991.9
67.5°	873.6	883.5
70°	757.2	759.2
72.5°	642.9	642.9
75°	524.6	526.5
77.5°	412.1	412.1
80°	305.7	307.6
82.5°	211.0	214.9
85°	132.1	132.1
87.5°	61.1	55.2
90°	31.2	31.2
92.5°	124.9	100.1
95°	435.2	360.1
97.5°	1042.7	899.8
100°	1502.4	1332.1
102.5°	1954.4	1808.6
105°	2530.9	2452.5
107.5°	2908.5	2927.4
110°	3052.5	3134.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3065.3	3190.7
115°	2984.0	3158.0
117.5°	2811.7	3004.5
120°	2672.8	2860.2
122.5°	2537.6	2722.3
125°	2344.6	2514.9
127.5°	2171.1	2314.7
130°	2068.8	2201.5
132.5°	1976.0	2094.9
135°	1848.9	1951.4
137.5°	1746.9	1830.8
140°	1676.9	1755.3
142.5°	1619.0	1686.5
145°	1532.0	1583.0
147.5°	1465.3	1507.6
150°	1423.3	1457.6
152.5°	1387.4	1413.2
155°	1346.1	1363.2
157.5°	1313.5	1325.5
160°	1294.0	1300.9
162.5°	1281.2	1287.8
165°	1262.9	1269.8
167.5°	1249.6	1252.5
170°	1245.9	1245.9
172.5°	1236.2	1233.7
175°	1230.3	1230.3
177.5°	1225.1	1222.1
180°	1222.1	1222.1



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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	3.37	4.16	4.42	5.22	6.65	16.55	17.34	17.60	18.40	19.83
	3H	4.07	4.78	5.13	5.84	7.30	18.38	19.09	19.44	20.16	21.61
	4H	4.37	5.03	5.44	6.11	7.57	19.02	19.69	20.10	20.76	22.23
	6H	4.61	5.23	5.69	6.30	7.78	19.45	20.07	20.53	21.14	22.62
	8H	4.68	5.26	5.76	6.35	7.82	19.57	20.16	20.66	21.25	22.72
	12H	4.69	5.25	5.78	6.33	7.83	19.64	20.19	20.73	21.28	22.77
4H	2H	10.58	11.25	11.66	12.32	13.78	16.81	17.48	17.89	18.55	20.02
	3H	12.14	12.70	13.22	13.79	15.27	18.85	19.41	19.94	20.51	21.99
	4H	12.23	12.74	13.32	13.83	15.33	19.62	20.13	20.71	21.22	22.71
	6H	12.23	12.68	13.34	13.79	15.28	20.15	20.59	21.25	21.70	23.19
	8H	12.21	12.62	13.31	13.73	15.23	20.31	20.72	21.41	21.83	23.33
	12H	12.16	12.54	13.28	13.65	15.16	20.40	20.78	21.52	21.89	23.40
8H	4H	13.67	14.08	14.77	15.18	16.69	19.67	20.08	20.77	21.19	22.69
	6H	13.91	14.25	15.03	15.39	16.89	20.30	20.64	21.42	21.78	23.29
	8H	13.92	14.22	15.05	15.35	16.87	20.51	20.81	21.64	21.94	23.46
	12H	13.89	14.15	15.02	15.27	16.83	20.66	20.92	21.79	22.04	23.60
12H	4H	13.81	14.18	14.92	15.30	16.81	19.62	19.99	20.74	21.11	22.62
	6H	14.16	14.46	15.29	15.59	17.11	20.28	20.58	21.41	21.70	23.23
	8H	14.23	14.49	15.36	15.62	17.17	20.50	20.77	21.64	21.89	23.45