

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: P938419

Luminaire Tested: SQ4-FB-150U-100D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938419
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

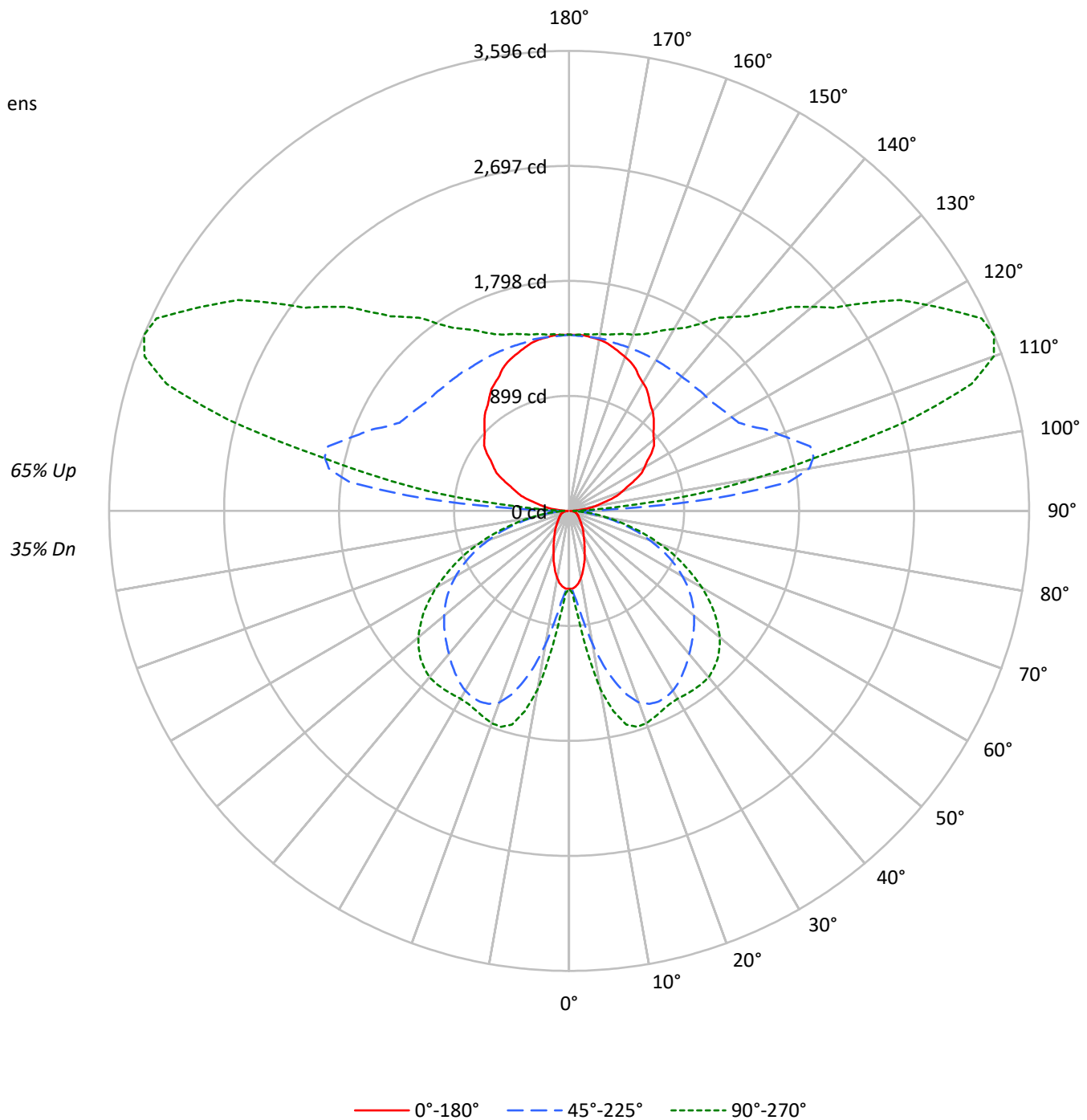
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13644.3 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3767	3767	3767
5°	3679	4353	5063
10°	3335	6344	8394
15°	2834	8286	10136
20°	2306	9599	10330
25°	1924	10043	10120
30°	1621	10104	10101
35°	1432	9934	10363
40°	1247	9713	10632
45°	1129	9550	10674
50°	1035	9403	10497
55°	990	9190	10032
60°	1013	8782	9297
65°	1051	8164	8287
70°	1117	7116	7001
75°	1233	5796	5464
80°	1338	4014	3682
85°	1169	2127	1885

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	0.6
10°-20°	349.1	2.6
20°-30°	610.6	4.5
30°-40°	786.1	5.8
40°-50°	878.0	6.4
50°-60°	840.9	6.2
60°-70°	666.5	4.9
70°-80°	391.9	2.9
80°-90°	114.1	0.8
90°-100°	671.4	4.9
100°-110°	1765.0	12.9
110°-120°	1830.1	13.4
120°-130°	1468.0	10.8
130°-140°	1151.8	8.4
140°-150°	884.1	6.5
150°-160°	636.7	4.7
160°-170°	389.6	2.9
170°-180°	131.6	1.0
0°-30°	1038.5	7.6
0°-40°	1824.6	13.4
0°-60°	3543.6	26.0
0°-90°	4716.1	34.6
90°-120°	4266.5	31.3
90°-150°	7770.4	56.9
90°-180°	8928.0	65.4
0°-180°	13644.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	609	609	609	609	609	
5°	593	636	717	811	840	55
15°	444	820	1382	1676	1729	124
25°	284	930	1647	1719	1721	131
35°	192	889	1551	1639	1704	120
45°	131	709	1371	1570	1641	101
55°	94	450	1163	1351	1388	86
65°	74	239	864	971	985	74
75°	55	147	474	521	523	57
85°	20	45	118	129	131	21
90°	9	26	70	35	35	9
95°	89	348	1156	596	406	99
105°	318	482	1951	2962	2764	337
115°	565	686	1563	3118	3559	558
125°	786	881	1422	2402	2834	698
135°	936	1031	1377	1939	2199	724
145°	1086	1156	1360	1655	1784	680
155°	1228	1262	1360	1493	1536	564
165°	1325	1342	1360	1413	1431	374
175°	1377	1377	1369	1386	1386	131
180°	1377	1377	1377	1377	1377	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9
2.5°	608.9	608.9	612.9	614.8	618.7	620.7	624.6	628.6	640.2	642.2	646.2
5°	593.3	601.1	626.6	636.4	663.7	701.0	716.6	742.1	794.9	810.7	820.4
7.5°	569.8	587.4	650.1	665.7	734.3	832.2	873.3	928.1	1012.3	1053.4	1086.7
10°	532.5	569.8	681.4	718.6	830.2	979.0	1055.4	1131.8	1259.0	1315.8	1337.4
12.5°	491.4	552.2	714.7	765.6	926.2	1143.5	1235.5	1319.7	1464.6	1541.0	1552.7
15°	444.5	526.7	746.0	820.4	1027.9	1280.5	1382.4	1486.1	1621.2	1676.0	1689.8
17.5°	403.4	507.1	775.4	853.7	1106.3	1403.9	1507.7	1593.8	1703.5	1740.7	1750.4
20°	352.4	475.8	794.9	896.8	1188.6	1494.0	1593.8	1660.4	1734.8	1758.3	1762.2
22.5°	315.3	442.5	806.7	912.4	1243.3	1548.8	1633.0	1685.8	1736.8	1744.6	1746.6
25°	284.0	405.3	804.7	930.1	1290.3	1582.1	1646.7	1685.8	1715.3	1719.1	1719.1
27.5°	254.5	364.2	796.9	934.0	1325.6	1589.9	1640.8	1668.2	1682.0	1689.8	1689.8
30°	229.1	325.1	777.4	926.2	1341.2	1582.1	1623.2	1636.9	1650.7	1662.3	1668.2
32.5°	209.6	287.8	747.9	910.4	1343.2	1562.5	1591.9	1599.7	1619.2	1646.7	1656.5
35°	191.9	250.7	714.7	888.9	1331.4	1531.2	1550.8	1558.6	1597.7	1638.9	1652.5
37.5°	174.3	223.2	671.6	851.8	1313.8	1494.0	1507.7	1521.4	1582.1	1631.0	1646.7
40°	156.6	199.7	620.7	810.7	1286.4	1448.9	1460.7	1482.2	1562.5	1619.2	1634.9
42.5°	143.0	180.1	565.8	767.6	1251.2	1398.0	1415.6	1446.9	1539.0	1599.7	1617.4
45°	131.2	160.6	507.1	708.8	1206.2	1345.2	1370.7	1413.7	1511.5	1570.3	1586.0
47.5°	119.4	146.8	446.5	648.1	1157.1	1292.3	1325.6	1374.5	1474.4	1531.2	1544.8
50°	109.7	133.2	385.7	583.5	1104.3	1235.5	1274.7	1325.6	1427.4	1480.2	1497.9
52.5°	101.9	121.4	328.9	518.9	1043.6	1176.8	1221.8	1274.7	1370.7	1421.5	1433.3
55°	94.0	111.6	280.0	450.3	981.0	1114.1	1163.1	1214.0	1307.9	1351.0	1358.9
57.5°	90.1	103.7	238.9	385.7	914.4	1043.6	1098.5	1145.5	1233.5	1266.8	1274.7
60°	84.2	97.9	207.6	330.9	842.0	977.0	1024.1	1071.0	1145.5	1172.9	1178.7
62.5°	78.3	94.0	184.1	278.0	767.6	898.7	945.7	988.8	1051.4	1071.0	1078.9
65°	74.4	90.1	166.5	238.9	691.2	816.5	863.5	900.7	951.6	971.2	975.1
67.5°	70.4	86.2	152.7	205.6	614.8	734.3	769.5	804.7	843.9	863.5	865.5
70°	64.6	82.2	141.0	182.1	536.5	640.2	669.7	706.8	738.1	747.9	753.8
72.5°	60.7	76.4	133.2	164.5	456.3	550.2	577.6	599.1	626.6	636.4	636.4
75°	54.8	68.6	125.3	146.8	374.0	450.3	473.8	495.4	516.9	520.9	514.9
77.5°	48.9	60.7	107.7	123.4	291.8	356.4	375.9	387.7	405.3	409.2	411.2
80°	41.1	52.9	84.2	95.9	211.4	262.4	276.0	285.8	301.5	301.5	305.5
82.5°	31.3	41.1	60.7	68.6	143.0	180.1	191.9	197.8	207.6	207.6	207.6
85°	19.6	25.5	39.1	45.1	86.2	109.7	117.5	119.4	127.3	129.2	129.2
87.5°	9.8	13.7	25.5	27.4	45.1	56.8	56.8	60.7	60.7	58.8	56.8
90°	9.3	16.7	24.0	25.9	40.7	60.4	70.2	62.4	46.8	35.2	35.2
92.5°	37.0	99.8	162.7	178.4	250.9	347.4	395.6	346.7	249.0	175.7	168.7
95°	88.7	203.7	318.8	347.6	617.2	976.6	1156.4	1031.9	782.9	596.2	575.0
97.5°	153.4	254.9	356.4	381.8	831.3	1430.7	1730.4	1651.7	1494.4	1376.4	1336.1
100°	203.3	295.4	387.4	410.4	909.3	1574.4	1906.9	1912.7	1924.2	1932.8	1884.9
102.5°	245.9	331.8	417.6	439.1	945.0	1619.5	1956.8	2057.0	2257.5	2407.9	2366.8
105°	317.9	390.7	463.4	481.6	971.5	1624.7	1951.3	2176.0	2625.4	2962.5	2940.4
107.5°	391.9	459.7	527.5	544.4	976.3	1552.3	1840.3	2153.8	2780.7	3250.9	3256.3
110°	441.8	503.1	564.2	579.6	969.0	1488.2	1747.9	2098.3	2799.2	3324.8	3347.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	490.8	549.1	607.4	622.0	969.3	1432.3	1663.8	2022.4	2739.7	3277.7	3313.1
115°	564.7	618.6	672.4	685.9	978.2	1368.1	1563.0	1908.5	2599.5	3117.7	3166.7
117.5°	637.8	686.7	735.6	747.8	996.5	1328.0	1493.8	1805.6	2429.1	2896.8	2951.2
120°	680.3	726.4	772.4	783.9	1011.2	1314.4	1466.0	1750.9	2320.7	2748.0	2800.8
122.5°	721.9	768.4	814.8	826.4	1032.5	1307.3	1444.8	1701.3	2214.4	2599.2	2651.3
125°	785.7	827.9	870.3	880.9	1061.1	1301.5	1421.6	1639.6	2075.4	2402.3	2450.2
127.5°	837.4	880.1	922.9	933.6	1089.8	1298.0	1402.2	1589.3	1963.6	2244.2	2284.8
130°	865.2	911.2	957.3	968.7	1110.8	1300.2	1394.9	1561.4	1894.6	2144.5	2181.8
132.5°	893.8	939.9	985.9	997.4	1127.7	1301.5	1388.3	1537.4	1835.7	2059.4	2092.9
135°	936.3	978.2	1020.2	1030.7	1146.2	1300.2	1377.3	1502.2	1751.9	1939.2	1968.1
137.5°	979.8	1021.3	1062.8	1073.2	1173.9	1308.2	1375.4	1481.0	1692.1	1850.5	1874.1
140°	1015.9	1054.1	1092.2	1101.8	1190.8	1309.6	1369.0	1460.2	1642.6	1779.4	1801.4
142.5°	1043.5	1078.9	1114.3	1123.1	1205.1	1314.3	1369.0	1449.1	1609.3	1729.4	1748.4
145°	1086.1	1116.9	1147.8	1155.5	1223.5	1314.3	1359.7	1425.2	1556.3	1654.6	1668.9
147.5°	1128.6	1158.6	1188.6	1196.1	1250.6	1323.3	1359.7	1411.3	1514.3	1591.7	1603.6
150°	1156.4	1183.4	1210.5	1217.3	1264.7	1328.1	1359.7	1403.3	1490.3	1555.6	1565.3
152.5°	1185.0	1205.6	1226.1	1231.2	1274.0	1331.1	1359.7	1396.8	1471.2	1527.0	1534.3
155°	1227.5	1242.7	1257.9	1261.7	1294.4	1337.9	1359.7	1389.2	1448.4	1492.8	1497.6
157.5°	1258.9	1273.7	1288.5	1292.2	1314.7	1344.7	1359.7	1382.7	1428.7	1463.2	1466.6
160°	1280.3	1291.7	1303.2	1306.0	1323.9	1347.7	1359.7	1379.4	1418.9	1448.4	1450.4
162.5°	1301.5	1310.1	1318.7	1320.9	1333.8	1351.1	1359.7	1376.3	1409.6	1434.6	1436.5
165°	1324.6	1332.4	1340.1	1342.1	1347.9	1355.7	1359.7	1371.6	1395.5	1413.3	1415.3
167.5°	1345.9	1349.5	1353.3	1354.2	1359.1	1365.7	1369.0	1376.8	1392.4	1404.0	1404.8
170°	1359.7	1363.3	1367.1	1368.0	1368.3	1368.8	1369.0	1376.8	1392.4	1404.0	1404.0
172.5°	1367.1	1367.9	1368.8	1369.0	1369.0	1369.0	1369.0	1375.1	1387.4	1396.6	1395.9
175°	1377.3	1377.3	1377.3	1377.3	1374.5	1370.8	1369.0	1372.8	1380.6	1386.5	1386.5
177.5°	1377.3	1377.3	1377.3	1377.3	1375.1	1372.2	1370.8	1373.8	1380.0	1384.7	1383.9
180°	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	608.9	608.9
2.5°	650.1	646.2
5°	836.0	840.0
7.5°	1125.8	1123.9
10°	1400.0	1417.6
12.5°	1599.7	1603.6
15°	1721.1	1728.9
17.5°	1768.1	1770.0
20°	1770.0	1766.1
22.5°	1748.5	1744.6
25°	1723.1	1721.1
27.5°	1699.6	1701.5
30°	1689.8	1695.6
32.5°	1689.8	1699.6
35°	1693.7	1703.5
37.5°	1691.8	1703.5
40°	1683.8	1697.6
42.5°	1662.3	1672.2
45°	1629.1	1640.8
47.5°	1586.0	1593.8
50°	1531.2	1539.0
52.5°	1462.6	1464.6
55°	1380.4	1388.2
57.5°	1292.3	1294.3
60°	1194.4	1200.2
62.5°	1090.7	1090.7
65°	981.0	984.8
67.5°	867.4	877.1
70°	751.9	753.8
72.5°	638.3	638.3
75°	520.9	522.8
77.5°	409.2	409.2
80°	303.5	305.5
82.5°	209.6	213.4
85°	131.2	131.2
87.5°	60.7	54.8
90°	35.2	35.2
92.5°	140.7	112.7
95°	490.3	405.8
97.5°	1175.0	1014.0
100°	1693.0	1501.2
102.5°	2202.4	2038.1
105°	2852.1	2763.7
107.5°	3277.6	3298.9
110°	3439.8	3531.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3454.3	3595.6
115°	3362.7	3558.7
117.5°	3168.5	3385.9
120°	3012.0	3223.2
122.5°	2859.6	3067.8
125°	2642.1	2834.0
127.5°	2446.6	2608.5
130°	2331.4	2480.9
132.5°	2226.8	2360.7
135°	2083.6	2199.0
137.5°	1968.7	2063.1
140°	1889.7	1978.1
142.5°	1824.4	1900.4
145°	1726.4	1783.9
147.5°	1651.2	1699.0
150°	1603.9	1642.6
152.5°	1563.4	1592.7
155°	1516.9	1536.2
157.5°	1480.2	1493.8
160°	1458.2	1466.0
162.5°	1443.8	1451.2
165°	1423.0	1430.8
167.5°	1408.2	1411.5
170°	1404.0	1404.0
172.5°	1393.1	1390.2
175°	1386.5	1386.5
177.5°	1380.5	1377.3
180°	1377.3	1377.3



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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	4.00	4.76	5.07	5.84	7.31	17.17	17.93	18.24	19.01	20.48
	3H	4.70	5.38	5.78	6.47	7.96	18.99	19.68	20.07	20.76	22.25
	4H	4.99	5.64	6.09	6.73	8.23	19.63	20.28	20.72	21.37	22.86
	6H	5.24	5.84	6.34	6.93	8.44	20.05	20.65	21.15	21.74	23.25
	8H	5.30	5.87	6.41	6.98	8.48	20.17	20.74	21.27	21.84	23.35
	12H	5.32	5.86	6.43	6.96	8.49	20.23	20.77	21.34	21.87	23.40
4H	2H	11.20	11.84	12.30	12.93	14.43	17.43	18.08	18.53	19.17	20.66
	3H	12.75	13.30	13.86	14.41	15.92	19.46	20.00	20.57	21.12	22.63
	4H	12.84	13.34	13.96	14.45	15.98	20.22	20.72	21.33	21.82	23.35
	6H	12.85	13.28	13.97	14.41	15.93	20.75	21.18	21.87	22.30	23.83
	8H	12.82	13.22	13.94	14.34	15.88	20.90	21.31	22.02	22.43	23.96
	12H	12.78	13.14	13.91	14.27	15.82	20.99	21.35	22.13	22.49	24.03
8H	4H	14.28	14.68	15.40	15.80	17.34	20.27	20.67	21.39	21.79	23.33
	6H	14.51	14.85	15.66	16.01	17.54	20.89	21.22	22.03	22.38	23.92
	8H	14.53	14.82	15.68	15.96	17.52	21.11	21.40	22.25	22.54	24.09
	12H	14.49	14.75	15.65	15.89	17.48	21.24	21.50	22.39	22.64	24.23
12H	4H	14.41	14.78	15.55	15.91	17.45	20.22	20.58	21.35	21.71	23.26
	6H	14.77	15.06	15.92	16.20	17.76	20.87	21.16	22.02	22.30	23.86
	8H	14.84	15.09	15.99	16.23	17.82	21.10	21.35	22.25	22.49	24.08