

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: P937080

Luminaire Tested: SQ4-FB-075U-050D-B2750-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937080  
REPORT IS A COMBINATION OF REPORTS P933493 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-050D-B2750-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

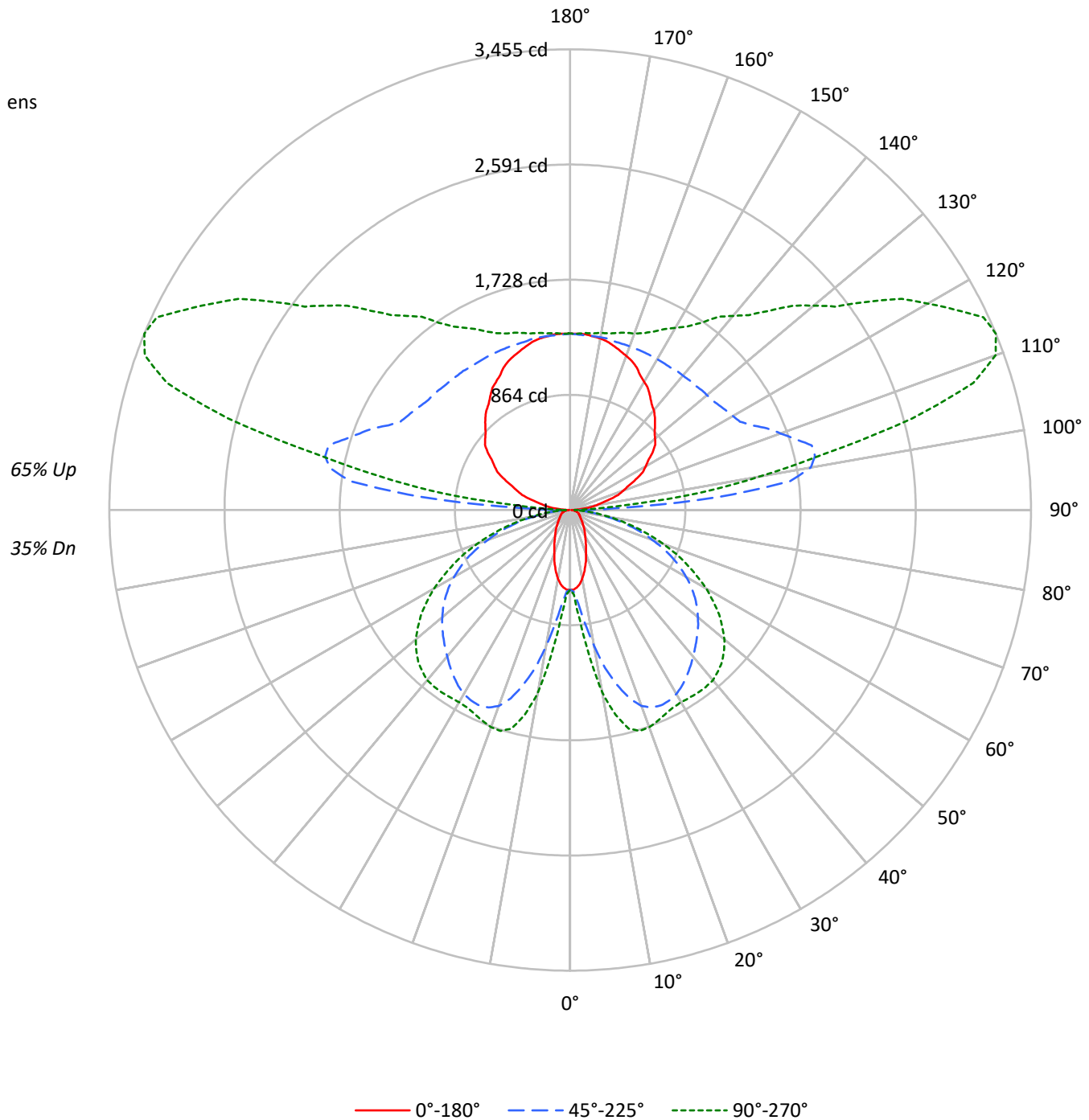
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13206.7 lumens  
Efficiency: N/A  
Efficacy: 128.0 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): 103.2  
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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### 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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	30	29	23
3	77	68	61	55	70	62	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	47	42	44	39	35	34	30	27	25	22	20	16
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12
7	55	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8
10	44	32	24	20	39	29	22	18	23	18	15	18	15	12	14	11	9	7

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

	0°	45°	90°
0°	1848	1848	1848
5°	1807	2137	2485
10°	1639	3116	4119
15°	1394	4072	4974
20°	1135	4720	5069
25°	947	4940	4966
30°	799	4973	4957
35°	707	4891	5085
40°	617	4786	5217
45°	558	4708	5238
50°	513	4639	5151
55°	492	4537	4923
60°	504	4340	4562
65°	526	4039	4067
70°	561	3525	3436
75°	624	2876	2681
80°	687	1997	1807
85°	622	1062	924

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5238 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.3	0.6
10°-20°	342.6	2.6
20°-30°	599.3	4.5
30°-40°	771.5	5.8
40°-50°	861.7	6.5
50°-60°	825.3	6.2
60°-70°	654.1	5.0
70°-80°	384.6	2.9
80°-90°	111.9	0.8
90°-100°	645.1	4.9
100°-110°	1695.9	12.8
110°-120°	1758.4	13.3
120°-130°	1410.5	10.7
130°-140°	1106.7	8.4
140°-150°	849.4	6.4
150°-160°	611.7	4.6
160°-170°	374.3	2.8
170°-180°	126.5	1.0
0°-30°	1019.2	7.7
0°-40°	1790.7	13.6
0°-60°	3477.7	26.3
0°-90°	4628.2	35.0
90°-120°	4099.3	31.0
90°-150°	7466.0	56.5
90°-180°	8578.0	65.0
0°-180°	13206.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	582	624	703	796	824	54
15°	436	805	1357	1645	1697	121
25°	279	913	1616	1687	1689	128
35°	188	872	1522	1608	1672	118
45°	129	696	1345	1541	1610	100
55°	92	442	1141	1326	1362	84
65°	73	234	848	953	967	72
75°	54	144	465	511	513	56
85°	19	44	115	127	129	20
90°	9	25	68	34	34	9
95°	85	334	1111	573	390	95
105°	306	463	1875	2846	2656	324
115°	543	659	1502	2996	3419	536
125°	755	846	1366	2308	2723	670
135°	900	990	1323	1863	2113	696
145°	1044	1110	1306	1590	1714	654
155°	1179	1212	1306	1434	1476	542
165°	1273	1290	1306	1358	1375	359
175°	1323	1323	1315	1332	1332	126
180°	1323	1323	1323	1323	1323	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6
2.5°	597.6	597.6	601.5	603.4	607.2	609.1	613.0	616.8	628.4	630.3	634.1
5°	582.3	589.9	614.9	624.5	651.4	687.9	703.3	728.3	780.1	795.5	805.2
7.5°	559.2	576.4	637.9	653.3	720.6	816.7	857.0	910.9	993.5	1033.8	1066.4
10°	522.7	559.2	668.7	705.3	814.7	960.8	1035.7	1110.7	1235.6	1291.4	1312.5
12.5°	482.3	541.9	701.4	751.3	908.9	1122.2	1212.6	1295.2	1437.4	1512.3	1523.8
15°	436.2	516.9	732.1	805.2	1008.9	1256.7	1356.7	1458.5	1591.1	1644.9	1658.4
17.5°	395.8	497.7	760.9	837.8	1085.7	1377.8	1479.6	1564.2	1671.8	1708.3	1717.9
20°	345.9	467.0	780.1	880.1	1166.4	1466.2	1564.2	1629.5	1702.6	1725.6	1729.4
22.5°	309.4	434.2	791.7	895.5	1220.2	1520.0	1602.6	1654.5	1704.5	1712.1	1714.0
25°	278.7	397.8	789.8	912.8	1266.3	1552.6	1616.1	1654.5	1683.3	1687.2	1687.2
27.5°	249.8	357.5	782.0	916.6	1300.9	1560.4	1610.3	1637.2	1650.6	1658.4	1658.4
30°	224.8	319.0	762.9	908.9	1316.3	1552.6	1593.0	1606.5	1619.9	1631.4	1637.2
32.5°	205.6	282.5	734.0	893.5	1318.2	1533.4	1562.3	1569.9	1589.1	1616.1	1625.7
35°	188.3	246.0	701.4	872.4	1306.7	1502.7	1521.9	1529.6	1568.0	1608.4	1621.8
37.5°	171.0	219.1	659.1	835.9	1289.3	1466.2	1479.6	1493.0	1552.6	1600.7	1616.1
40°	153.8	196.0	609.1	795.5	1262.5	1422.0	1433.6	1454.7	1533.4	1589.1	1604.5
42.5°	140.3	176.8	555.3	753.3	1227.9	1372.0	1389.3	1420.1	1510.3	1569.9	1587.2
45°	128.7	157.6	497.7	695.6	1183.7	1320.1	1345.1	1387.4	1483.5	1541.1	1556.5
47.5°	117.2	144.1	438.2	636.0	1135.7	1268.2	1300.9	1348.9	1446.9	1502.7	1516.2
50°	107.6	130.6	378.6	572.6	1083.7	1212.6	1251.0	1300.9	1400.9	1452.7	1470.0
52.5°	99.9	119.2	322.8	509.2	1024.2	1154.9	1199.1	1251.0	1345.1	1395.1	1406.6
55°	92.3	109.5	274.8	442.0	962.7	1093.4	1141.4	1191.4	1283.6	1325.9	1333.6
57.5°	88.4	101.8	234.5	378.6	897.4	1024.2	1078.0	1124.1	1210.6	1243.3	1251.0
60°	82.6	96.1	203.7	324.8	826.3	958.9	1005.0	1051.1	1124.1	1151.1	1156.8
62.5°	76.9	92.3	180.6	272.8	753.3	882.0	928.2	970.4	1031.9	1051.1	1058.8
65°	73.1	88.4	163.3	234.5	678.3	801.3	847.5	883.9	933.9	953.1	956.9
67.5°	69.1	84.5	149.8	201.8	603.4	720.6	755.2	789.8	828.2	847.5	849.4
70°	63.4	80.7	138.4	178.7	526.5	628.4	657.2	693.7	724.5	734.0	739.8
72.5°	59.6	75.0	130.6	161.4	447.7	540.0	566.9	588.0	614.9	624.5	624.5
75°	53.8	67.2	123.0	144.1	367.0	442.0	465.0	486.2	507.3	511.1	505.4
77.5°	48.0	59.6	105.7	121.1	286.3	349.7	368.9	380.5	397.8	401.6	403.5
80°	40.4	51.9	82.6	94.2	207.5	257.5	270.9	280.6	296.0	296.0	299.8
82.5°	30.8	40.4	59.6	67.2	140.3	176.8	188.3	194.1	203.7	203.7	203.7
85°	19.2	25.0	38.4	44.2	84.5	107.6	115.3	117.2	124.9	126.8	126.8
87.5°	9.6	13.5	25.0	26.9	44.2	55.8	55.8	59.6	59.6	57.7	55.8
90°	8.9	15.9	23.0	24.8	39.1	58.1	67.5	60.0	45.0	33.7	33.7
92.5°	35.5	95.9	156.3	171.4	240.9	333.7	380.1	333.1	239.2	168.7	162.1
95°	85.3	195.8	306.4	334.0	593.0	938.4	1111.0	991.5	752.3	572.8	552.5
97.5°	147.5	245.0	342.5	366.8	798.8	1374.6	1662.6	1586.9	1435.7	1322.4	1283.7
100°	195.4	283.8	372.3	394.3	873.6	1512.6	1832.2	1837.7	1848.8	1857.1	1811.0
102.5°	236.3	318.8	401.2	421.8	907.9	1556.1	1880.2	1976.5	2169.1	2313.6	2274.1
105°	305.5	375.4	445.2	462.7	933.4	1561.0	1874.9	2090.8	2522.6	2846.5	2825.3
107.5°	376.6	441.7	506.8	523.1	938.2	1491.6	1768.3	2069.5	2671.8	3123.5	3128.7
110°	424.5	483.3	542.2	556.9	931.0	1430.0	1679.5	2016.2	2689.6	3194.6	3216.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	471.6	527.6	583.7	597.7	931.4	1376.3	1598.7	1943.2	2632.5	3149.3	3183.2
115°	542.6	594.3	646.1	658.9	939.9	1314.6	1501.8	1833.8	2497.7	2995.6	3042.7
117.5°	612.8	659.8	706.7	718.4	957.4	1275.9	1435.2	1734.8	2333.9	2783.3	2835.6
120°	653.7	697.9	742.0	753.1	971.6	1262.9	1408.5	1682.2	2229.7	2640.4	2691.1
122.5°	693.6	738.2	782.8	794.0	992.1	1256.1	1388.1	1634.6	2127.6	2497.4	2547.5
125°	754.9	795.6	836.3	846.4	1019.6	1250.5	1365.9	1575.4	1994.1	2308.2	2354.4
127.5°	804.7	845.7	886.8	897.0	1047.2	1247.2	1347.3	1527.1	1886.7	2156.4	2195.3
130°	831.3	875.5	919.7	930.7	1067.2	1249.1	1340.2	1500.2	1820.3	2060.4	2096.3
132.5°	858.8	903.0	947.2	958.2	1083.4	1250.5	1333.9	1477.2	1763.8	1978.8	2010.9
135°	899.7	939.9	980.2	990.2	1101.3	1249.3	1323.3	1443.3	1683.3	1863.3	1891.0
137.5°	941.4	981.3	1021.2	1031.1	1128.0	1257.0	1321.5	1423.0	1625.9	1778.0	1800.7
140°	976.0	1012.7	1049.4	1058.6	1144.2	1258.3	1315.3	1403.0	1578.2	1709.6	1730.8
142.5°	1002.7	1036.7	1070.6	1079.1	1157.8	1262.8	1315.3	1392.3	1546.2	1661.7	1679.9
145°	1043.5	1073.1	1102.7	1110.2	1175.6	1262.8	1306.4	1369.4	1495.3	1589.8	1603.6
147.5°	1084.4	1113.2	1142.1	1149.2	1201.7	1271.5	1306.4	1356.0	1455.0	1529.3	1540.8
150°	1111.0	1137.1	1163.2	1169.7	1215.2	1276.1	1306.4	1348.3	1431.9	1494.7	1503.9
152.5°	1138.6	1158.3	1178.0	1183.0	1224.1	1279.0	1306.4	1342.2	1413.6	1467.2	1474.1
155°	1179.4	1194.0	1208.6	1212.3	1243.7	1285.5	1306.4	1334.9	1391.7	1434.3	1439.0
157.5°	1209.6	1223.8	1238.1	1241.6	1263.2	1292.0	1306.4	1328.5	1372.7	1405.9	1409.1
160°	1230.0	1241.1	1252.2	1255.0	1272.2	1295.0	1306.4	1325.3	1363.3	1391.7	1393.6
162.5°	1250.5	1258.8	1267.0	1269.1	1281.5	1298.1	1306.4	1322.4	1354.4	1378.4	1380.2
165°	1272.7	1280.2	1287.6	1289.5	1295.2	1302.7	1306.4	1317.9	1340.7	1357.9	1359.8
167.5°	1293.1	1296.6	1300.2	1301.1	1305.9	1312.2	1315.3	1322.8	1337.8	1349.0	1349.8
170°	1306.4	1310.0	1313.6	1314.5	1314.7	1315.1	1315.3	1322.8	1337.8	1349.0	1349.0
172.5°	1313.5	1314.3	1315.1	1315.3	1315.3	1315.3	1315.3	1321.2	1333.1	1342.0	1341.3
175°	1323.3	1323.3	1323.3	1323.3	1320.7	1317.1	1315.3	1319.0	1326.6	1332.2	1332.2
177.5°	1323.3	1323.3	1323.3	1323.3	1321.2	1318.5	1317.1	1320.1	1326.0	1330.4	1329.6
180°	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	597.6	597.6
2.5°	637.9	634.1
5°	820.5	824.4
7.5°	1104.9	1103.0
10°	1374.0	1391.2
12.5°	1569.9	1573.7
15°	1689.1	1696.7
17.5°	1735.2	1737.1
20°	1737.1	1733.3
22.5°	1715.9	1712.1
25°	1691.0	1689.1
27.5°	1667.9	1669.9
30°	1658.4	1664.1
32.5°	1658.4	1667.9
35°	1662.2	1671.8
37.5°	1660.3	1671.8
40°	1652.5	1666.0
42.5°	1631.4	1641.1
45°	1598.8	1610.3
47.5°	1556.5	1564.2
50°	1502.7	1510.3
52.5°	1435.5	1437.4
55°	1354.8	1362.4
57.5°	1268.2	1270.1
60°	1172.2	1177.9
62.5°	1070.4	1070.4
65°	962.7	966.6
67.5°	851.3	860.8
70°	737.9	739.8
72.5°	626.5	626.5
75°	511.1	513.0
77.5°	401.6	401.6
80°	297.9	299.8
82.5°	205.6	209.4
85°	128.7	128.7
87.5°	59.6	53.8
90°	33.7	33.7
92.5°	135.2	108.4
95°	471.2	389.9
97.5°	1129.0	974.3
100°	1626.7	1442.3
102.5°	2116.2	1958.3
105°	2740.4	2655.5
107.5°	3149.2	3169.7
110°	3305.1	3393.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3319.0	3454.8
115°	3231.0	3419.3
117.5°	3044.3	3253.2
120°	2894.0	3096.9
122.5°	2747.5	2947.7
125°	2538.7	2723.0
127.5°	2350.8	2506.3
130°	2240.0	2383.8
132.5°	2139.6	2268.3
135°	2002.0	2112.8
137.5°	1891.5	1982.3
140°	1815.7	1900.5
142.5°	1753.0	1826.0
145°	1658.8	1714.0
147.5°	1586.5	1632.4
150°	1541.1	1578.2
152.5°	1502.2	1530.2
155°	1457.5	1476.0
157.5°	1422.2	1435.2
160°	1401.1	1408.5
162.5°	1387.2	1394.4
165°	1367.3	1374.8
167.5°	1353.0	1356.2
170°	1349.0	1349.0
172.5°	1338.5	1335.8
175°	1332.2	1332.2
177.5°	1326.5	1323.3
180°	1323.3	1323.3



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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	1.60	2.36	2.66	3.44	4.90	14.79	15.55	15.86	16.63	18.09
	3H	2.29	2.98	3.37	4.06	5.55	16.62	17.31	17.70	18.39	19.88
	4H	2.59	3.24	3.68	4.32	5.82	17.27	17.92	18.36	19.01	20.50
	6H	2.83	3.43	3.93	4.52	6.02	17.70	18.30	18.80	19.39	20.89
	8H	2.90	3.47	4.00	4.57	6.07	17.82	18.39	18.92	19.50	20.99
	12H	2.91	3.45	4.02	4.55	6.08	17.89	18.43	18.99	19.53	21.05
4H	2H	8.81	9.46	9.90	10.54	12.04	15.05	15.70	16.14	16.79	18.28
	3H	10.36	10.91	11.47	12.02	13.53	17.09	17.64	18.19	18.75	20.25
	4H	10.45	10.96	11.56	12.06	13.58	17.86	18.36	18.96	19.46	20.98
	6H	10.46	10.89	11.58	12.02	13.53	18.39	18.83	19.51	19.95	21.47
	8H	10.43	10.84	11.55	11.95	13.49	18.56	18.96	19.67	20.08	21.61
	12H	10.38	10.75	11.52	11.88	13.42	18.65	19.01	19.78	20.14	21.68
8H	4H	11.89	12.30	13.01	13.41	14.95	17.91	18.31	19.02	19.43	20.96
	6H	12.13	12.46	13.27	13.62	15.15	18.54	18.87	19.68	20.03	21.56
	8H	12.15	12.44	13.29	13.58	15.13	18.76	19.05	19.90	20.19	21.74
	12H	12.11	12.37	13.26	13.50	15.09	18.90	19.16	20.05	20.29	21.88
12H	4H	12.03	12.40	13.17	13.53	15.07	17.86	18.22	18.99	19.35	20.89
	6H	12.39	12.68	13.53	13.82	15.37	18.52	18.81	19.66	19.95	21.50
	8H	12.45	12.71	13.60	13.85	15.43	18.75	19.00	19.90	20.14	21.73