

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: P938452

Luminaire Tested: SQ4-FB-150U-100D-930-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938452
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-930-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

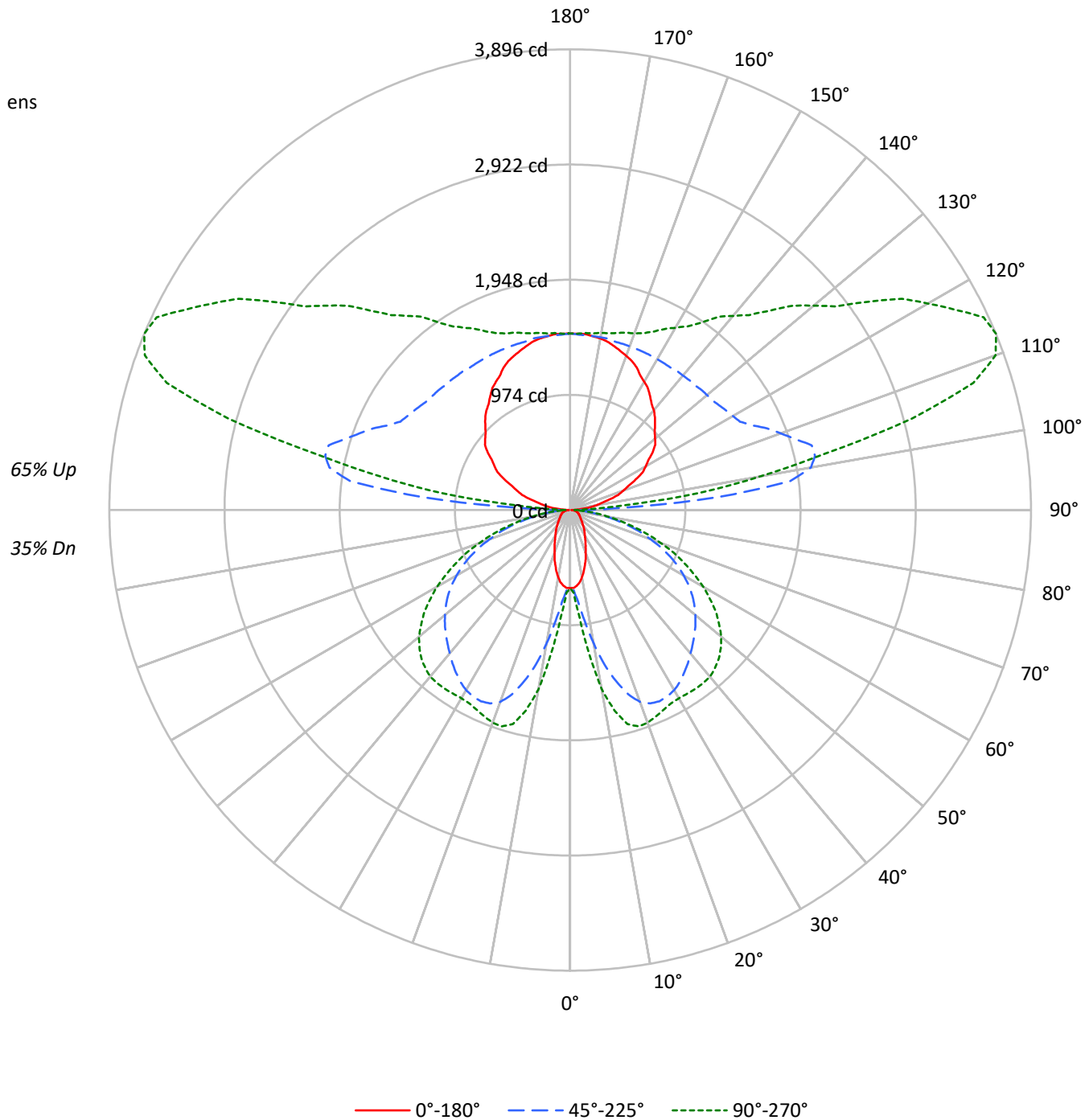
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14786.4 lumens
Efficiency: N/A
Efficacy: 102.1 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): 144.8
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°	3062	3062	3062
5°	2991	3539	4116
10°	2713	5159	6823
15°	2306	6740	8239
20°	1878	7810	8397
25°	1566	8173	8226
30°	1321	8225	8211
35°	1168	8088	8423
40°	1018	7910	8642
45°	922	7781	8676
50°	845	7664	8532
55°	809	7492	8155
60°	828	7163	7558
65°	862	6663	6737
70°	918	5811	5691
75°	1017	4738	4441
80°	1113	3286	2993
85°	987	1744	1532

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8676 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	0.6
10°-20°	378.4	2.6
20°-30°	661.8	4.5
30°-40°	851.9	5.8
40°-50°	951.6	6.4
50°-60°	911.4	6.2
60°-70°	722.3	4.9
70°-80°	424.7	2.9
80°-90°	123.7	0.8
90°-100°	727.5	4.9
100°-110°	1912.7	12.9
110°-120°	1983.2	13.4
120°-130°	1590.8	10.8
130°-140°	1248.2	8.4
140°-150°	958.1	6.5
150°-160°	690.0	4.7
160°-170°	422.2	2.9
170°-180°	142.6	1.0
0°-30°	1125.5	7.6
0°-40°	1977.5	13.4
0°-60°	3840.5	26.0
0°-90°	5111.2	34.6
90°-120°	4623.4	31.3
90°-150°	8420.5	56.9
90°-180°	9675.0	65.4
0°-180°	14786.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	643	690	777	879	910	59
15°	482	889	1498	1816	1874	134
25°	308	1008	1785	1863	1865	142
35°	208	963	1681	1776	1846	130
45°	142	768	1486	1702	1778	110
55°	102	488	1260	1464	1505	93
65°	81	259	936	1053	1067	80
75°	59	159	514	564	567	62
85°	21	49	127	140	142	23
90°	10	28	76	38	38	10
95°	96	377	1253	646	440	107
105°	345	522	2114	3210	2995	365
115°	612	743	1694	3379	3856	604
125°	851	955	1541	2603	3071	756
135°	1015	1117	1492	2102	2383	785
145°	1177	1252	1473	1793	1933	737
155°	1330	1367	1473	1618	1665	611
165°	1435	1454	1473	1532	1551	405
175°	1492	1492	1484	1502	1502	142
180°	1492	1492	1492	1492	1492	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
2.5°	660.0	660.0	664.2	666.3	670.6	672.7	676.9	681.2	694.0	696.0	700.3
5°	643.0	651.5	679.1	689.7	719.4	759.7	776.7	804.3	861.5	878.6	889.2
7.5°	617.5	636.6	704.6	721.5	795.8	901.8	946.4	1005.8	1097.1	1141.7	1177.8
10°	577.2	617.5	738.5	778.8	899.8	1061.0	1143.8	1226.6	1364.5	1426.0	1449.3
12.5°	532.6	598.4	774.6	829.7	1003.8	1239.3	1339.0	1430.3	1587.3	1670.1	1682.8
15°	481.7	570.9	808.5	889.2	1114.1	1387.8	1498.2	1610.7	1757.0	1816.5	1831.3
17.5°	437.2	549.7	840.3	925.2	1199.0	1521.5	1634.0	1727.3	1846.2	1886.5	1897.2
20°	382.0	515.7	861.5	971.9	1288.1	1619.2	1727.3	1799.5	1880.1	1905.6	1909.9
22.5°	341.7	479.6	874.3	988.9	1347.5	1678.6	1769.8	1827.1	1882.3	1890.7	1892.9
25°	307.7	439.2	872.1	1008.0	1398.4	1714.6	1784.7	1827.1	1858.9	1863.2	1863.2
27.5°	275.8	394.7	863.7	1012.3	1436.6	1723.2	1778.3	1808.0	1822.9	1831.3	1831.3
30°	248.3	352.3	842.4	1003.8	1453.6	1714.6	1759.2	1774.1	1788.9	1801.6	1808.0
32.5°	227.1	312.0	810.6	986.7	1455.8	1693.4	1725.2	1733.8	1755.0	1784.7	1795.3
35°	208.0	271.7	774.6	963.4	1443.0	1659.5	1680.7	1689.2	1731.6	1776.2	1791.0
37.5°	188.9	241.9	727.8	923.1	1423.9	1619.2	1634.0	1648.9	1714.6	1767.6	1784.7
40°	169.8	216.5	672.7	878.6	1394.2	1570.3	1583.0	1606.4	1693.4	1755.0	1771.9
42.5°	154.9	195.2	613.3	831.8	1356.0	1515.2	1534.3	1568.2	1667.9	1733.8	1752.9
45°	142.2	174.0	549.7	768.1	1307.2	1457.8	1485.5	1532.1	1638.2	1701.9	1718.9
47.5°	129.4	159.2	483.8	702.4	1254.1	1400.6	1436.6	1489.7	1597.9	1659.5	1674.3
50°	118.8	144.3	418.0	632.4	1196.9	1339.0	1381.5	1436.6	1547.0	1604.3	1623.3
52.5°	110.3	131.5	356.5	562.3	1131.0	1275.3	1324.1	1381.5	1485.5	1540.6	1553.3
55°	101.8	120.9	303.5	488.1	1063.2	1207.5	1260.5	1315.7	1417.5	1464.2	1472.7
57.5°	97.6	112.5	258.9	418.0	991.0	1131.0	1190.4	1241.4	1336.9	1373.0	1381.5
60°	91.2	106.1	224.9	358.6	912.5	1058.9	1109.8	1160.7	1241.4	1271.1	1277.5
62.5°	84.9	101.8	199.5	301.4	831.8	974.0	1024.9	1071.7	1139.5	1160.7	1169.2
65°	80.6	97.6	180.4	258.9	749.1	884.9	935.8	976.1	1031.3	1052.6	1056.8
67.5°	76.4	93.4	165.5	222.8	666.3	795.8	834.0	872.1	914.6	935.8	938.0
70°	70.0	89.1	152.8	197.4	581.5	694.0	725.8	766.1	800.0	810.6	817.0
72.5°	65.8	82.8	144.3	178.3	494.4	596.3	626.0	649.4	679.1	689.7	689.7
75°	59.4	74.3	135.8	159.2	405.4	488.1	513.5	536.9	560.3	564.5	558.1
77.5°	53.1	65.8	116.7	133.7	316.2	386.2	407.4	420.1	439.2	443.5	445.7
80°	44.6	57.3	91.2	104.0	229.2	284.3	299.2	309.8	326.8	326.8	331.1
82.5°	34.0	44.6	65.8	74.3	154.9	195.2	208.0	214.3	224.9	224.9	224.9
85°	21.2	27.6	42.5	48.8	93.4	118.8	127.4	129.4	138.0	140.0	140.0
87.5°	10.6	14.9	27.6	29.7	48.8	61.5	61.5	65.8	65.8	63.7	61.5
90°	10.0	18.1	26.0	28.0	44.1	65.4	76.1	67.7	50.7	38.1	38.1
92.5°	40.1	108.2	176.3	193.4	271.8	376.4	428.7	375.7	269.8	190.3	182.8
95°	96.2	220.8	345.5	376.6	668.7	1058.3	1253.1	1118.2	848.4	646.1	623.1
97.5°	166.3	276.2	386.2	413.7	900.9	1550.4	1875.2	1789.9	1619.4	1491.5	1447.9
100°	220.3	320.1	419.8	444.8	985.4	1706.1	2066.4	2072.7	2085.2	2094.5	2042.5
102.5°	266.4	359.5	452.5	475.8	1024.1	1755.0	2120.6	2229.2	2446.4	2609.3	2564.9
105°	344.6	423.3	502.2	521.9	1052.7	1760.6	2114.5	2358.1	2845.1	3210.4	3186.5
107.5°	424.7	498.2	571.6	590.0	1058.1	1682.3	1994.3	2334.0	3013.4	3522.9	3528.7
110°	478.8	545.2	611.5	628.0	1050.1	1612.8	1894.2	2273.9	3033.4	3603.1	3628.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	531.9	595.1	658.3	674.1	1050.4	1552.1	1803.0	2191.6	2968.9	3551.9	3590.2
115°	612.0	670.3	728.6	743.3	1060.1	1482.6	1693.8	2068.2	2817.0	3378.6	3431.7
117.5°	691.1	744.1	797.1	810.4	1079.8	1439.1	1618.7	1956.6	2632.4	3139.2	3198.1
120°	737.2	787.1	837.0	849.4	1095.9	1424.4	1588.7	1897.4	2514.9	2978.0	3035.2
122.5°	782.3	832.6	882.9	895.5	1118.9	1416.7	1565.6	1843.6	2399.7	2816.7	2873.1
125°	851.4	897.3	943.1	954.6	1149.9	1410.3	1540.6	1776.7	2249.0	2603.3	2655.3
127.5°	907.6	953.8	1000.1	1011.7	1181.0	1406.7	1519.5	1722.3	2127.9	2432.0	2475.9
130°	937.6	987.4	1037.3	1049.8	1203.7	1408.9	1511.5	1692.0	2053.1	2323.9	2364.4
132.5°	968.7	1018.5	1068.4	1080.8	1222.1	1410.4	1504.5	1666.1	1989.3	2231.7	2268.0
135°	1014.7	1060.1	1105.6	1116.9	1242.1	1409.0	1492.5	1627.8	1898.5	2101.5	2132.8
137.5°	1061.8	1106.8	1151.7	1162.9	1272.1	1417.7	1490.5	1605.0	1833.7	2005.3	2030.9
140°	1100.8	1142.3	1183.6	1194.0	1290.5	1419.1	1483.5	1582.3	1780.0	1928.2	1952.2
142.5°	1130.9	1169.2	1207.5	1217.0	1305.8	1424.3	1483.5	1570.3	1743.9	1874.1	1894.7
145°	1177.0	1210.4	1243.8	1252.1	1325.9	1424.3	1473.4	1544.4	1686.5	1793.0	1808.6
147.5°	1223.0	1255.6	1288.1	1296.2	1355.3	1434.1	1473.4	1529.3	1641.0	1724.8	1737.8
150°	1253.1	1282.5	1311.9	1319.2	1370.6	1439.1	1473.4	1520.6	1615.0	1685.8	1696.3
152.5°	1284.2	1306.4	1328.7	1334.3	1380.7	1442.5	1473.4	1513.7	1594.3	1654.7	1662.6
155°	1330.2	1346.7	1363.2	1367.3	1402.7	1449.8	1473.4	1505.5	1569.6	1617.7	1622.9
157.5°	1364.3	1380.4	1396.3	1400.4	1424.7	1457.2	1473.4	1498.4	1548.3	1585.7	1589.4
160°	1387.3	1399.8	1412.2	1415.4	1434.7	1460.5	1473.4	1494.8	1537.6	1569.6	1571.7
162.5°	1410.4	1419.7	1429.1	1431.4	1445.4	1464.1	1473.4	1491.5	1527.5	1554.6	1556.6
165°	1435.4	1443.8	1452.3	1454.4	1460.7	1469.2	1473.4	1486.4	1512.2	1531.6	1533.6
167.5°	1458.4	1462.4	1466.4	1467.5	1472.8	1479.9	1483.5	1491.9	1508.8	1521.5	1522.4
170°	1473.4	1477.4	1481.5	1482.5	1482.8	1483.2	1483.5	1491.9	1508.8	1521.5	1521.5
172.5°	1481.5	1482.3	1483.2	1483.5	1483.5	1483.5	1483.5	1490.1	1503.5	1513.5	1512.7
175°	1492.5	1492.5	1492.5	1492.5	1489.5	1485.5	1483.5	1487.7	1496.1	1502.5	1502.5
177.5°	1492.5	1492.5	1492.5	1492.5	1490.1	1487.0	1485.5	1488.8	1495.5	1500.5	1499.6
180°	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	660.0	660.0
2.5°	704.6	700.3
5°	906.1	910.4
7.5°	1220.2	1218.1
10°	1517.3	1536.4
12.5°	1733.8	1738.0
15°	1865.3	1873.8
17.5°	1916.2	1918.4
20°	1918.4	1914.1
22.5°	1895.0	1890.7
25°	1867.5	1865.3
27.5°	1841.9	1844.1
30°	1831.3	1837.7
32.5°	1831.3	1841.9
35°	1835.6	1846.2
37.5°	1833.5	1846.2
40°	1825.0	1839.8
42.5°	1801.6	1812.2
45°	1765.6	1778.3
47.5°	1718.9	1727.3
50°	1659.5	1667.9
52.5°	1585.2	1587.3
55°	1496.1	1504.6
57.5°	1400.6	1402.7
60°	1294.4	1300.9
62.5°	1182.0	1182.0
65°	1063.2	1067.4
67.5°	940.1	950.7
70°	814.9	817.0
72.5°	691.8	691.8
75°	564.5	566.6
77.5°	443.5	443.5
80°	328.9	331.1
82.5°	227.1	231.3
85°	142.2	142.2
87.5°	65.8	59.4
90°	38.1	38.1
92.5°	152.5	122.2
95°	531.4	439.7
97.5°	1273.3	1098.8
100°	1834.6	1626.7
102.5°	2386.8	2208.7
105°	3090.7	2995.0
107.5°	3551.8	3575.0
110°	3727.7	3827.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3743.3	3896.5
115°	3644.1	3856.4
117.5°	3433.6	3669.1
120°	3264.0	3492.8
122.5°	3098.9	3324.6
125°	2863.3	3071.2
127.5°	2651.3	2826.7
130°	2526.5	2688.5
132.5°	2413.1	2558.3
135°	2257.9	2383.0
137.5°	2133.3	2235.7
140°	2047.9	2143.6
142.5°	1977.1	2059.5
145°	1870.9	1933.2
147.5°	1789.4	1841.0
150°	1738.2	1780.0
152.5°	1694.2	1725.9
155°	1643.9	1664.8
157.5°	1604.0	1618.7
160°	1580.2	1588.7
162.5°	1564.6	1572.6
165°	1542.2	1550.6
167.5°	1526.0	1529.6
170°	1521.5	1521.5
172.5°	1509.6	1506.5
175°	1502.5	1502.5
177.5°	1496.0	1492.5
180°	1492.5	1492.5



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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	3.29	4.05	4.36	5.13	6.60	16.46	17.23	17.54	18.30	19.78
	3H	3.98	4.67	5.07	5.75	7.24	18.30	18.98	19.38	20.07	21.56
	4H	4.28	4.93	5.37	6.02	7.51	18.94	19.59	20.03	20.67	22.17
	6H	4.52	5.12	5.62	6.21	7.72	19.36	19.96	20.46	21.05	22.56
	8H	4.59	5.16	5.69	6.27	7.77	19.48	20.05	20.59	21.16	22.66
	12H	4.60	5.14	5.71	6.24	7.77	19.54	20.09	20.66	21.19	22.71
4H	2H	10.49	11.14	11.59	12.23	13.72	16.73	17.38	17.83	18.46	19.96
	3H	12.05	12.59	13.15	13.70	15.21	18.76	19.31	19.87	20.42	21.93
	4H	12.14	12.64	13.25	13.74	15.27	19.52	20.02	20.64	21.13	22.66
	6H	12.14	12.57	13.26	13.70	15.22	20.06	20.49	21.18	21.62	23.14
	8H	12.12	12.52	13.24	13.64	15.18	20.22	20.62	21.34	21.74	23.28
	12H	12.07	12.43	13.20	13.56	15.11	20.31	20.67	21.44	21.80	23.35
8H	4H	13.57	13.97	14.69	15.09	16.63	19.58	19.98	20.70	21.10	22.64
	6H	13.81	14.14	14.95	15.30	16.84	20.20	20.53	21.34	21.69	23.23
	8H	13.83	14.12	14.97	15.26	16.82	20.42	20.71	21.57	21.85	23.41
	12H	13.79	14.05	14.94	15.18	16.78	20.56	20.81	21.71	21.95	23.54
12H	4H	13.71	14.07	14.85	15.21	16.75	19.52	19.89	20.66	21.02	22.56
	6H	14.07	14.36	15.22	15.50	17.06	20.18	20.47	21.33	21.62	23.17
	8H	14.13	14.39	15.28	15.53	17.12	20.41	20.66	21.56	21.80	23.39