

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: P938568

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938568
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

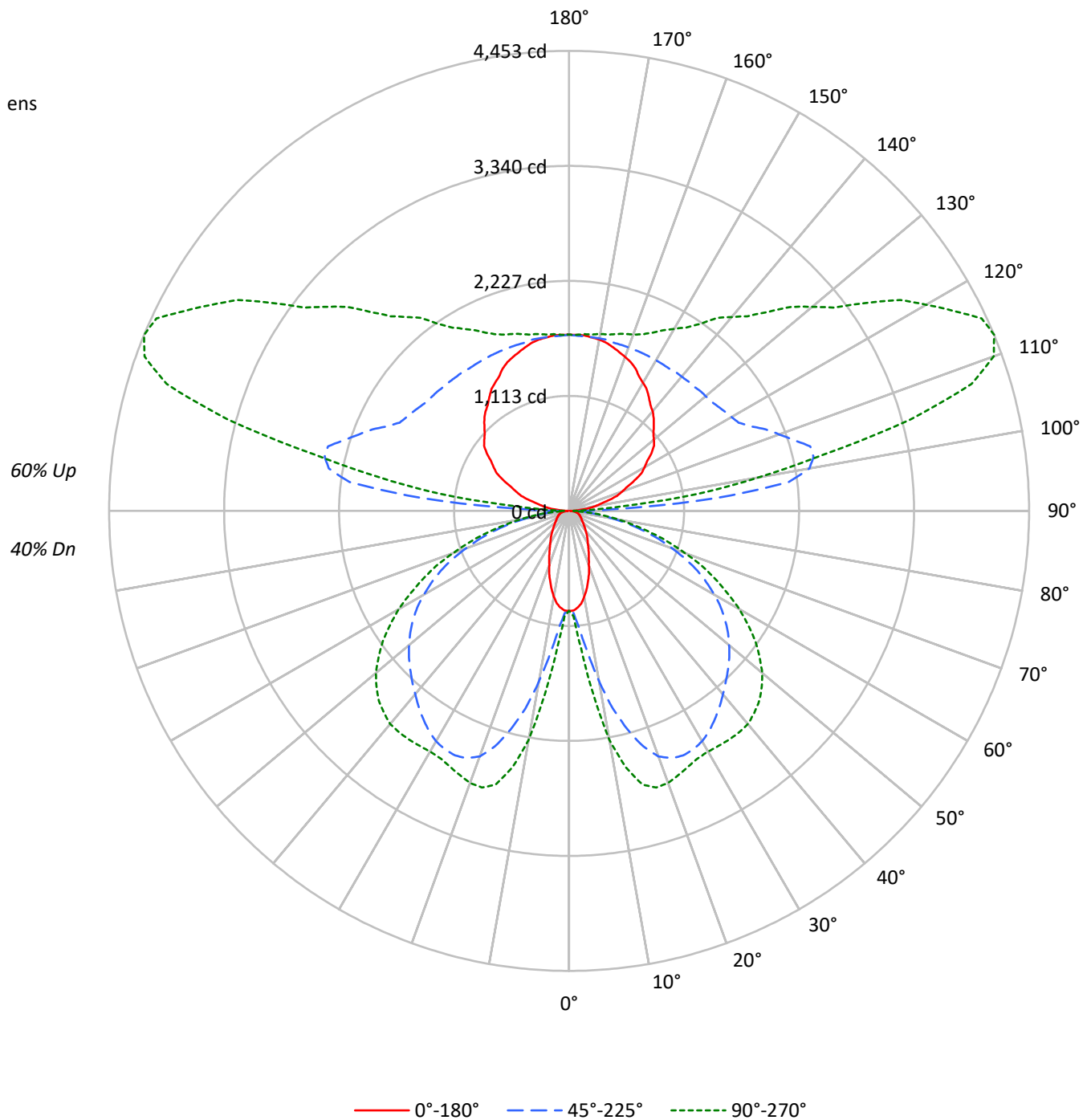
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18536.5 lumens
Efficiency: N/A
Efficacy: 111.4 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: General Diffuse

Input Watts (W): 166.4
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P938568
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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4482	4482	4482
5°	4378	5180	6024
10°	3971	7551	9987
15°	3375	9865	12059
20°	2748	11432	12290
25°	2292	11963	12041
30°	1933	12039	12018
35°	1709	11839	12328
40°	1489	11579	12650
45°	1349	11388	12700
50°	1237	11217	12489
55°	1185	10967	11936
60°	1213	10485	11061
65°	1262	9753	9861
70°	1344	8505	8330
75°	1490	6935	6501
80°	1627	4809	4380
85°	1444	2552	2242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12700 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	0.7
10°-20°	553.8	3.0
20°-30°	968.7	5.2
30°-40°	1247.0	6.7
40°-50°	1392.8	7.5
50°-60°	1334.0	7.2
60°-70°	1057.2	5.7
70°-80°	621.7	3.4
80°-90°	179.2	1.0
90°-100°	831.4	4.5
100°-110°	2185.9	11.8
110°-120°	2266.5	12.2
120°-130°	1818.0	9.8
130°-140°	1426.5	7.7
140°-150°	1094.9	5.9
150°-160°	788.5	4.3
160°-170°	482.5	2.6
170°-180°	163.0	0.9
0°-30°	1647.4	8.9
0°-40°	2894.4	15.6
0°-60°	5621.2	30.3
0°-90°	7479.3	40.3
90°-120°	5283.8	28.5
90°-150°	9623.2	51.9
90°-180°	11057.0	59.6
0°-180°	18536.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	941	1010	1137	1286	1332	87
15°	705	1301	2193	2659	2743	196
25°	450	1475	2612	2727	2730	207
35°	304	1410	2460	2600	2702	190
45°	208	1124	2174	2491	2603	161
55°	149	714	1845	2143	2202	136
65°	118	379	1370	1541	1562	117
75°	87	233	752	826	829	91
85°	31	71	186	205	208	33
90°	12	32	87	44	44	12
95°	110	430	1432	738	502	122
105°	394	596	2417	3669	3423	417
115°	700	849	1936	3861	4407	691
125°	973	1091	1761	2975	3510	864
135°	1160	1276	1706	2402	2723	897
145°	1345	1431	1684	2049	2209	843
155°	1520	1563	1684	1849	1903	699
165°	1640	1662	1684	1750	1772	463
175°	1706	1706	1695	1717	1717	162
180°	1706	1706	1706	1706	1706	



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 CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0
2.5°	966.0	966.0	972.2	975.3	981.5	984.6	990.8	997.1	1015.7	1018.8	1025.0
5°	941.1	953.6	994.0	1009.5	1053.0	1112.0	1136.8	1177.2	1261.0	1285.9	1301.4
7.5°	903.8	931.8	1031.2	1056.1	1164.7	1320.1	1385.3	1472.3	1605.8	1671.0	1723.9
10°	844.8	903.8	1080.9	1139.9	1317.0	1553.0	1674.2	1795.3	1997.2	2087.3	2121.4
12.5°	779.6	875.9	1133.7	1214.5	1469.1	1813.9	1959.9	2093.4	2323.3	2444.5	2463.1
15°	705.1	835.6	1183.4	1301.4	1630.7	2031.3	2192.8	2357.5	2571.8	2658.7	2680.5
17.5°	639.8	804.5	1230.0	1354.2	1754.9	2227.1	2391.6	2528.3	2702.2	2761.3	2776.8
20°	559.1	754.8	1261.0	1422.5	1885.4	2369.9	2528.3	2633.9	2752.0	2789.2	2795.4
22.5°	500.1	701.9	1279.7	1447.4	1972.3	2456.9	2590.5	2674.3	2755.0	2767.5	2770.6
25°	450.4	642.9	1276.6	1475.4	2046.9	2509.7	2612.2	2674.3	2720.9	2727.1	2727.1
27.5°	403.8	577.7	1264.1	1481.6	2102.8	2522.1	2602.9	2646.4	2668.1	2680.5	2680.5
30°	363.4	515.6	1233.1	1469.1	2127.7	2509.7	2574.9	2596.6	2618.4	2637.0	2646.4
32.5°	332.4	456.6	1186.5	1444.3	2130.7	2478.6	2525.2	2537.6	2568.7	2612.2	2627.7
35°	304.4	397.5	1133.7	1410.1	2112.1	2429.0	2460.0	2472.4	2534.5	2599.7	2621.5
37.5°	276.4	354.0	1065.4	1351.1	2084.2	2369.9	2391.6	2413.4	2509.7	2587.3	2612.2
40°	248.5	316.8	984.6	1285.9	2040.7	2298.5	2317.1	2351.2	2478.6	2568.7	2593.5
42.5°	226.8	285.8	897.7	1217.6	1984.8	2217.7	2245.7	2295.3	2441.3	2537.6	2565.6
45°	208.1	254.7	804.5	1124.4	1913.3	2133.8	2174.2	2242.6	2397.8	2491.1	2515.9
47.5°	189.5	232.9	708.2	1028.1	1835.7	2049.9	2102.8	2180.4	2338.8	2429.0	2450.7
50°	173.9	211.3	611.9	925.6	1751.8	1959.9	2022.0	2102.8	2264.3	2348.2	2376.1
52.5°	161.5	192.5	521.8	823.1	1655.5	1866.7	1938.2	2022.0	2174.2	2255.0	2273.6
55°	149.1	177.0	444.2	714.4	1556.1	1767.3	1845.0	1925.8	2074.8	2143.2	2155.6
57.5°	142.9	164.6	378.9	611.9	1450.5	1655.5	1742.5	1817.0	1956.8	2009.6	2022.0
60°	133.5	155.3	329.3	524.9	1335.6	1549.9	1624.4	1699.0	1817.0	1860.5	1869.8
62.5°	124.3	149.1	292.0	441.0	1217.6	1425.6	1500.2	1568.5	1667.9	1699.0	1711.4
65°	118.0	142.9	264.0	378.9	1096.5	1295.2	1369.8	1428.8	1509.5	1540.6	1546.8
67.5°	111.8	136.6	242.3	326.1	975.3	1164.7	1220.6	1276.6	1338.7	1369.8	1372.9
70°	102.5	130.5	223.6	288.9	851.1	1015.7	1062.2	1121.2	1171.0	1186.5	1195.8
72.5°	96.3	121.1	211.3	260.9	723.7	872.8	916.3	950.5	994.0	1009.5	1009.5
75°	87.0	108.7	198.8	232.9	593.3	714.4	751.7	785.8	820.0	826.2	816.9
77.5°	77.6	96.3	170.9	195.7	462.8	565.3	596.3	615.0	642.9	649.2	652.3
80°	65.2	83.9	133.5	152.2	335.4	416.2	437.9	453.5	478.3	478.3	484.5
82.5°	49.7	65.2	96.3	108.7	226.8	285.8	304.4	313.7	329.3	329.3	329.3
85°	31.0	40.4	62.1	71.4	136.6	173.9	186.4	189.5	201.9	205.0	205.0
87.5°	15.5	21.7	40.4	43.5	71.4	90.1	90.1	96.3	96.3	93.1	90.1
90°	11.5	20.6	29.7	32.0	50.4	74.8	87.0	77.4	58.0	43.5	43.5
92.5°	45.8	123.6	201.5	221.0	310.6	430.2	490.0	429.4	308.3	217.5	208.9
95°	109.9	252.4	394.8	430.4	764.3	1209.4	1432.1	1277.9	969.6	738.4	712.1
97.5°	190.1	315.7	441.4	472.8	1029.6	1771.9	2143.0	2045.5	1850.7	1704.5	1654.7
100°	251.8	365.8	479.8	508.3	1126.1	1949.7	2361.6	2368.8	2383.0	2393.6	2334.2
102.5°	304.5	410.9	517.1	543.7	1170.3	2005.7	2423.4	2547.6	2795.8	2982.0	2931.2
105°	393.8	483.8	573.9	596.4	1203.1	2012.0	2416.6	2694.9	3251.5	3668.9	3641.6
107.5°	485.4	569.3	653.2	674.2	1209.2	1922.6	2279.2	2667.4	3443.8	4026.1	4032.7
110°	547.2	623.0	698.8	717.7	1200.1	1843.2	2164.8	2598.7	3466.7	4117.7	4146.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	607.9	680.1	752.3	770.4	1200.4	1773.8	2060.5	2504.7	3393.0	4059.2	4103.0
115°	699.5	766.1	832.7	849.4	1211.5	1694.3	1935.8	2363.6	3219.4	3861.2	3921.9
117.5°	789.9	850.4	911.0	926.1	1234.0	1644.6	1849.9	2236.1	3008.4	3587.6	3654.9
120°	842.5	899.5	956.5	970.7	1252.4	1627.8	1815.6	2168.4	2874.1	3403.4	3468.7
122.5°	894.0	951.6	1009.0	1023.4	1278.7	1619.1	1789.2	2106.9	2742.4	3219.0	3283.5
125°	973.0	1025.4	1077.8	1091.0	1314.1	1611.7	1760.6	2030.5	2570.3	2975.2	3034.5
127.5°	1037.2	1090.0	1143.0	1156.2	1349.7	1607.6	1736.6	1968.3	2431.8	2779.4	2829.5
130°	1071.5	1128.5	1185.5	1199.7	1375.6	1610.1	1727.4	1933.7	2346.4	2655.8	2702.2
132.5°	1107.0	1164.0	1221.0	1235.2	1396.6	1611.8	1719.4	1904.0	2273.4	2550.5	2591.9
135°	1159.6	1211.5	1263.5	1276.4	1419.5	1610.3	1705.6	1860.4	2169.7	2401.7	2437.4
137.5°	1213.5	1264.9	1316.2	1329.0	1453.8	1620.2	1703.4	1834.2	2095.6	2291.8	2321.0
140°	1258.1	1305.4	1352.7	1364.5	1474.8	1621.8	1695.3	1808.3	2034.3	2203.7	2231.0
142.5°	1292.4	1336.2	1379.9	1390.9	1492.4	1627.7	1695.3	1794.6	1993.0	2141.8	2165.3
145°	1345.1	1383.2	1421.4	1431.0	1515.3	1627.7	1683.9	1765.0	1927.3	2049.1	2066.9
147.5°	1397.7	1434.9	1472.1	1481.3	1548.9	1638.9	1683.9	1747.8	1875.4	1971.2	1986.0
150°	1432.1	1465.7	1499.2	1507.6	1566.3	1644.7	1683.9	1737.8	1845.7	1926.6	1938.5
152.5°	1467.6	1493.0	1518.5	1524.8	1577.9	1648.5	1683.9	1729.9	1822.0	1891.1	1900.1
155°	1520.3	1539.1	1557.9	1562.6	1603.0	1656.9	1683.9	1720.5	1793.8	1848.8	1854.8
157.5°	1559.2	1577.5	1595.8	1600.4	1628.2	1665.3	1683.9	1712.4	1769.4	1812.2	1816.4
160°	1585.5	1599.7	1614.0	1617.5	1639.6	1669.1	1683.9	1708.3	1757.2	1793.8	1796.2
162.5°	1611.8	1622.5	1633.2	1635.9	1651.9	1673.2	1683.9	1704.5	1745.7	1776.7	1779.0
165°	1640.4	1650.0	1659.7	1662.1	1669.4	1679.0	1683.9	1698.7	1728.2	1750.3	1752.7
167.5°	1666.7	1671.3	1675.9	1677.1	1683.1	1691.3	1695.3	1705.0	1724.3	1738.8	1739.9
170°	1683.9	1688.5	1693.1	1694.2	1694.6	1695.1	1695.3	1705.0	1724.3	1738.8	1738.8
172.5°	1693.1	1694.1	1695.1	1695.3	1695.3	1695.3	1695.3	1703.0	1718.2	1729.7	1728.8
175°	1705.6	1705.6	1705.6	1705.6	1702.2	1697.6	1695.3	1700.2	1709.8	1717.1	1717.1
177.5°	1705.6	1705.6	1705.6	1705.6	1703.0	1699.4	1697.6	1701.5	1709.1	1714.8	1713.8
180°	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	966.0	966.0
2.5°	1031.2	1025.0
5°	1326.3	1332.5
7.5°	1785.9	1782.9
10°	2220.8	2248.8
12.5°	2537.6	2543.9
15°	2730.2	2742.6
17.5°	2804.8	2807.9
20°	2807.9	2801.6
22.5°	2773.7	2767.5
25°	2733.4	2730.2
27.5°	2696.0	2699.1
30°	2680.5	2689.9
32.5°	2680.5	2696.0
35°	2686.7	2702.2
37.5°	2683.6	2702.2
40°	2671.2	2693.0
42.5°	2637.0	2652.6
45°	2584.2	2602.9
47.5°	2515.9	2528.3
50°	2429.0	2441.3
52.5°	2320.2	2323.3
55°	2189.7	2202.2
57.5°	2049.9	2053.1
60°	1894.7	1904.0
62.5°	1730.0	1730.0
65°	1556.1	1562.4
67.5°	1376.0	1391.5
70°	1192.7	1195.8
72.5°	1012.6	1012.6
75°	826.2	829.3
77.5°	649.2	649.2
80°	481.4	484.5
82.5°	332.4	338.5
85°	208.1	208.1
87.5°	96.3	87.0
90°	43.5	43.5
92.5°	174.3	139.7
95°	607.3	502.5
97.5°	1455.2	1255.8
100°	2096.7	1859.1
102.5°	2727.7	2524.2
105°	3532.2	3422.8
107.5°	4059.1	4085.6
110°	4260.1	4374.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4278.0	4453.0
115°	4164.6	4407.2
117.5°	3924.1	4193.2
120°	3730.2	3991.7
122.5°	3541.5	3799.4
125°	3272.2	3509.8
127.5°	3030.0	3230.5
130°	2887.3	3072.5
132.5°	2757.8	2923.7
135°	2580.4	2723.4
137.5°	2438.0	2555.0
140°	2340.4	2449.8
142.5°	2259.5	2353.6
145°	2138.1	2209.4
147.5°	2045.0	2104.0
150°	1986.4	2034.3
152.5°	1936.2	1972.4
155°	1878.7	1902.6
157.5°	1833.1	1849.9
160°	1805.9	1815.6
162.5°	1788.0	1797.2
165°	1762.4	1772.1
167.5°	1744.0	1748.0
170°	1738.8	1738.8
172.5°	1725.3	1721.7
175°	1717.1	1717.1
177.5°	1709.7	1705.6
180°	1705.6	1705.6



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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	5.26	6.07	6.29	7.12	8.52	18.44	19.25	19.47	20.29	21.69
	3H	5.97	6.69	7.00	7.74	9.16	20.28	21.01	21.32	22.06	23.48
	4H	6.26	6.95	7.31	8.00	9.43	20.92	21.61	21.97	22.66	24.09
	6H	6.51	7.15	7.57	8.20	9.64	21.35	21.99	22.41	23.04	24.48
	8H	6.58	7.18	7.64	8.25	9.69	21.47	22.08	22.53	23.15	24.58
	12H	6.59	7.17	7.66	8.23	9.69	21.54	22.11	22.61	23.18	24.64
4H	2H	12.47	13.16	13.53	14.22	15.64	18.71	19.40	19.77	20.45	21.88
	3H	14.04	14.61	15.10	15.69	17.13	20.75	21.33	21.82	22.41	23.85
	4H	14.13	14.66	15.20	15.73	17.19	21.52	22.05	22.59	23.12	24.58
	6H	14.14	14.59	15.22	15.69	17.14	22.05	22.51	23.13	23.60	25.06
	8H	14.11	14.54	15.19	15.62	17.10	22.21	22.64	23.30	23.73	25.20
	12H	14.07	14.45	15.17	15.55	17.03	22.30	22.69	23.40	23.79	25.27
8H	4H	15.57	16.00	16.65	17.08	18.55	21.57	22.00	22.65	23.09	24.56
	6H	15.81	16.16	16.91	17.29	18.76	22.20	22.55	23.30	23.68	25.15
	8H	15.83	16.14	16.94	17.25	18.73	22.42	22.73	23.53	23.84	25.33
	12H	15.79	16.07	16.91	17.17	18.70	22.56	22.83	23.68	23.94	25.47
12H	4H	15.71	16.10	16.81	17.20	18.67	21.52	21.91	22.62	23.01	24.49
	6H	16.07	16.38	17.18	17.49	18.98	22.18	22.49	23.29	23.60	25.09
	8H	16.13	16.41	17.25	17.51	19.04	22.41	22.68	23.53	23.79	25.31