

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: P938593

Luminaire Tested: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938593
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-B2750-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

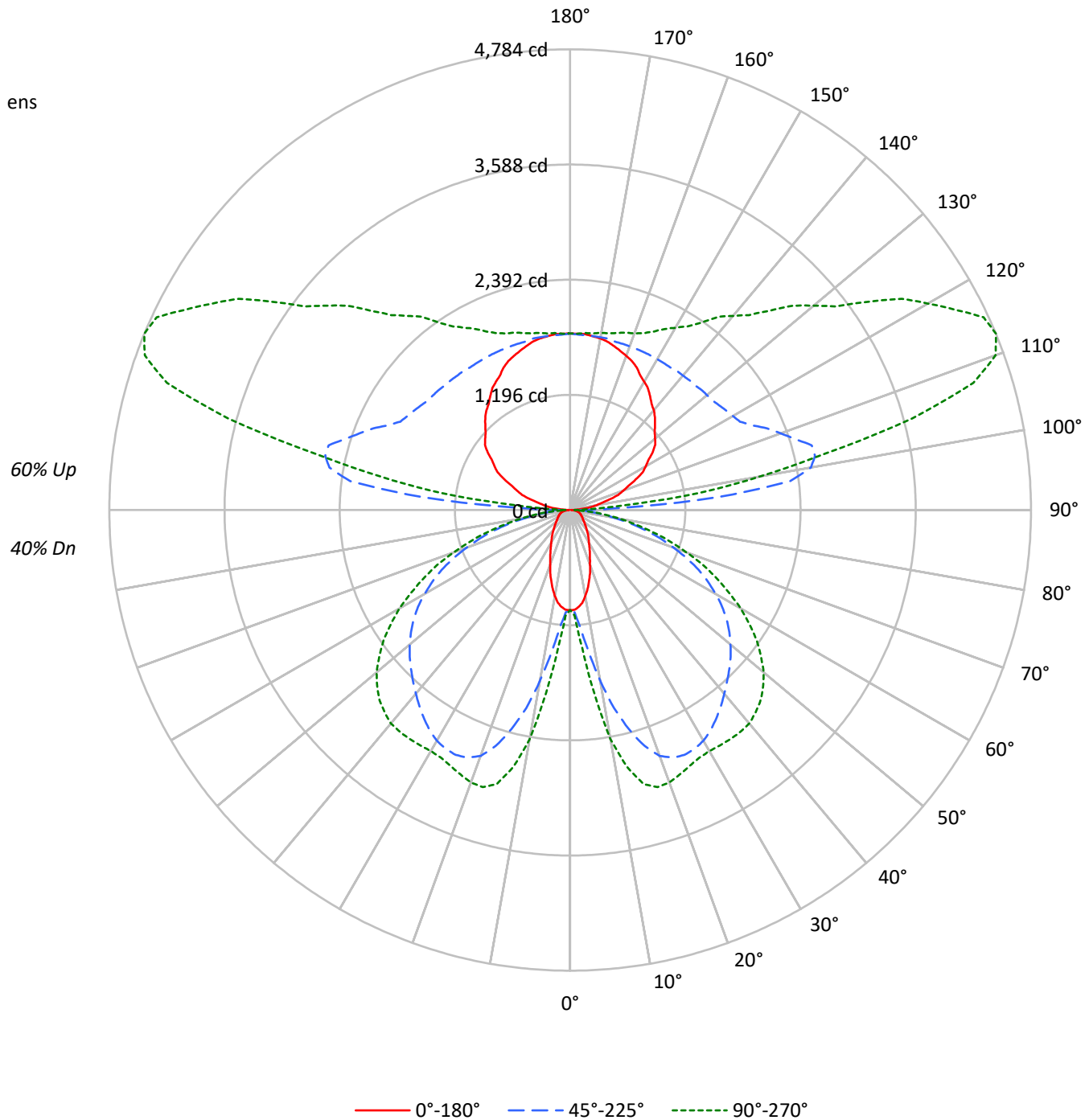
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19916.2 lumens
Efficiency: N/A
Efficacy: 119.7 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 (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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4815	4815	4815
5°	4704	5566	6473
10°	4267	8113	10731
15°	3626	10599	12957
20°	2952	12283	13205
25°	2463	12853	12937
30°	2077	12934	12913
35°	1837	12720	13246
40°	1600	12441	13592
45°	1449	12236	13645
50°	1329	12053	13419
55°	1273	11783	12824
60°	1303	11265	11885
65°	1356	10479	10595
70°	1444	9138	8950
75°	1601	7451	6984
80°	1749	5167	4706
85°	1551	2742	2409

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13645 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	0.7
10°-20°	595.0	3.0
20°-30°	1040.8	5.2
30°-40°	1339.8	6.7
40°-50°	1496.5	7.5
50°-60°	1433.3	7.2
60°-70°	1135.9	5.7
70°-80°	667.9	3.4
80°-90°	192.5	1.0
90°-100°	893.3	4.5
100°-110°	2348.6	11.8
110°-120°	2435.2	12.2
120°-130°	1953.3	9.8
130°-140°	1532.7	7.7
140°-150°	1176.4	5.9
150°-160°	847.2	4.3
160°-170°	518.4	2.6
170°-180°	175.1	0.9
0°-30°	1770.0	8.9
0°-40°	3109.8	15.6
0°-60°	6039.6	30.3
0°-90°	8036.0	40.3
90°-120°	5677.1	28.5
90°-150°	10339.5	51.9
90°-180°	11880.0	59.6
0°-180°	19916.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1011	1085	1222	1382	1432	93
15°	758	1398	2356	2857	2947	211
25°	484	1585	2807	2930	2933	223
35°	327	1515	2643	2793	2903	204
45°	224	1208	2336	2676	2797	173
55°	160	768	1982	2303	2366	146
65°	127	407	1472	1655	1679	126
75°	94	250	808	888	891	98
85°	33	77	200	220	224	35
90°	12	34	94	47	47	12
95°	118	462	1539	793	540	131
105°	423	641	2596	3942	3678	449
115°	752	913	2080	4149	4735	742
125°	1046	1172	1892	3197	3771	928
135°	1246	1371	1833	2580	2926	964
145°	1445	1538	1809	2202	2374	905
155°	1633	1679	1809	1986	2044	751
165°	1762	1786	1809	1881	1904	497
175°	1833	1833	1822	1845	1845	174
180°	1833	1833	1833	1833	1833	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9
2.5°	1037.9	1037.9	1044.6	1047.9	1054.5	1057.9	1064.6	1071.3	1091.3	1094.7	1101.3
5°	1011.1	1024.6	1067.9	1084.6	1131.3	1194.7	1221.5	1264.8	1354.9	1381.6	1398.2
7.5°	971.1	1001.2	1108.0	1134.7	1251.4	1418.4	1488.4	1581.8	1725.3	1795.4	1852.2
10°	907.7	971.1	1161.3	1224.7	1415.0	1668.6	1798.8	1928.9	2145.8	2242.7	2279.3
12.5°	837.6	941.1	1218.1	1304.9	1578.5	1948.9	2105.8	2249.3	2496.3	2626.4	2646.4
15°	757.5	897.8	1271.4	1398.2	1752.0	2182.5	2356.0	2532.9	2763.3	2856.6	2880.0
17.5°	687.4	864.3	1321.5	1455.0	1885.5	2392.8	2569.6	2716.5	2903.4	2966.8	2983.4
20°	600.7	811.0	1354.9	1528.4	2025.7	2546.3	2716.5	2829.9	2956.8	2996.8	3003.5
22.5°	537.3	754.2	1375.0	1555.1	2119.1	2639.7	2783.3	2873.3	2960.1	2973.5	2976.8
25°	483.9	690.8	1371.6	1585.2	2199.3	2696.5	2806.6	2873.3	2923.4	2930.1	2930.1
27.5°	433.8	620.7	1358.2	1591.9	2259.3	2709.8	2796.6	2843.3	2866.7	2880.0	2880.0
30°	390.5	553.9	1324.9	1578.5	2286.0	2696.5	2766.5	2789.9	2813.3	2833.3	2843.3
32.5°	357.1	490.5	1274.8	1551.8	2289.3	2663.1	2713.2	2726.5	2759.9	2806.6	2823.3
35°	327.1	427.1	1218.1	1515.1	2269.3	2609.7	2643.1	2656.4	2723.1	2793.2	2816.6
37.5°	297.0	380.4	1144.6	1451.7	2239.3	2546.3	2569.6	2593.0	2696.5	2779.9	2806.6
40°	267.0	340.4	1057.9	1381.6	2192.6	2469.5	2489.6	2526.2	2663.1	2759.9	2786.5
42.5°	243.6	307.0	964.5	1308.2	2132.5	2382.8	2412.8	2466.2	2623.1	2726.5	2756.6
45°	223.6	273.6	864.3	1208.0	2055.7	2292.6	2336.0	2409.5	2576.3	2676.5	2703.1
47.5°	203.6	250.2	760.9	1104.6	1972.3	2202.5	2259.3	2342.7	2512.9	2609.7	2633.1
50°	186.8	227.0	657.5	994.5	1882.2	2105.8	2172.6	2259.3	2432.9	2523.0	2553.0
52.5°	173.5	206.9	560.6	884.3	1778.7	2005.6	2082.4	2172.6	2336.0	2422.8	2442.8
55°	160.2	190.2	477.2	767.6	1672.0	1898.8	1982.4	2069.1	2229.2	2302.7	2316.0
57.5°	153.5	176.9	407.1	657.5	1558.5	1778.7	1872.2	1952.3	2102.4	2159.1	2172.6
60°	143.5	166.8	353.8	564.0	1435.0	1665.3	1745.3	1825.5	1952.3	1999.0	2009.0
62.5°	133.5	160.2	313.7	473.9	1308.2	1531.8	1611.9	1685.3	1792.1	1825.5	1838.8
65°	126.8	153.5	283.7	407.1	1178.1	1391.6	1471.7	1535.1	1621.9	1655.3	1661.9
67.5°	120.1	146.8	260.3	350.4	1047.9	1251.4	1311.5	1371.6	1438.4	1471.7	1475.1
70°	110.1	140.2	240.3	310.4	914.4	1091.3	1141.3	1204.7	1258.1	1274.8	1284.9
72.5°	103.4	130.2	227.0	280.3	777.6	937.8	984.5	1021.2	1067.9	1084.6	1084.6
75°	93.5	116.8	213.6	250.2	637.4	767.6	807.6	844.3	881.0	887.7	877.7
77.5°	83.4	103.4	183.6	210.2	497.2	607.4	640.7	660.8	690.8	697.5	700.8
80°	70.1	90.1	143.5	163.5	360.4	447.2	470.5	487.3	513.9	513.9	520.6
82.5°	53.4	70.1	103.4	116.8	243.6	307.0	327.1	337.0	353.8	353.8	353.8
85°	33.3	43.4	66.8	76.7	146.8	186.8	200.3	203.6	216.9	220.3	220.3
87.5°	16.7	23.4	43.4	46.7	76.7	96.8	96.8	103.4	103.4	100.1	96.8
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.8	462.2	526.4	461.3	331.3	233.7	224.4
95°	118.1	271.2	424.2	462.4	821.1	1299.4	1538.7	1373.0	1041.8	793.3	765.1
97.5°	204.2	339.2	474.3	508.0	1106.2	1903.8	2302.5	2197.8	1988.5	1831.4	1777.9
100°	270.6	393.0	515.5	546.1	1209.9	2094.9	2537.4	2545.1	2560.3	2571.8	2508.0
102.5°	327.2	441.4	555.6	584.2	1257.4	2155.0	2603.8	2737.2	3003.9	3204.0	3149.4
105°	423.1	519.8	616.6	640.8	1292.6	2161.8	2596.4	2895.5	3493.5	3942.0	3912.6
107.5°	521.5	611.7	701.8	724.4	1299.3	2065.7	2448.8	2865.9	3700.2	4325.8	4332.9
110°	588.0	669.4	750.8	771.2	1289.4	1980.4	2325.9	2792.2	3724.7	4424.2	4454.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.1	730.7	808.3	827.7	1289.8	1905.8	2213.9	2691.1	3645.5	4361.4	4408.4
115°	751.5	823.1	894.7	912.6	1301.7	1820.5	2079.9	2539.5	3459.0	4148.6	4213.8
117.5°	848.7	913.7	978.8	995.1	1325.9	1767.0	1987.6	2402.5	3232.3	3854.7	3926.9
120°	905.2	966.5	1027.7	1043.0	1345.6	1749.0	1950.7	2329.8	3088.1	3656.7	3726.9
122.5°	960.6	1022.4	1084.1	1099.6	1373.9	1739.6	1922.4	2263.8	2946.6	3458.6	3527.9
125°	1045.5	1101.8	1158.1	1172.2	1412.0	1731.7	1891.6	2181.6	2761.6	3196.6	3260.4
127.5°	1114.4	1171.2	1228.1	1242.3	1450.1	1727.3	1865.8	2114.8	2612.8	2986.3	3040.1
130°	1151.3	1212.5	1273.7	1289.0	1478.0	1729.9	1855.9	2077.6	2521.0	2853.5	2903.3
132.5°	1189.4	1250.6	1311.9	1327.2	1500.6	1731.8	1847.4	2045.8	2442.6	2740.3	2784.9
135°	1245.9	1301.7	1357.5	1371.4	1525.1	1730.1	1832.6	1998.8	2331.2	2580.5	2618.8
137.5°	1303.8	1359.0	1414.1	1427.9	1562.0	1740.8	1830.2	1970.7	2251.6	2462.3	2493.8
140°	1351.7	1402.6	1453.4	1466.1	1584.6	1742.6	1821.5	1942.9	2185.7	2367.7	2397.1
142.5°	1388.6	1435.6	1482.6	1494.4	1603.4	1748.9	1821.5	1928.1	2141.3	2301.2	2326.5
145°	1445.2	1486.2	1527.2	1537.5	1628.1	1748.9	1809.2	1896.4	2070.8	2201.6	2220.8
147.5°	1501.8	1541.7	1581.6	1591.6	1664.2	1760.9	1809.2	1877.8	2015.0	2117.9	2133.8
150°	1538.7	1574.7	1610.8	1619.8	1682.9	1767.1	1809.2	1867.2	1983.0	2070.0	2082.8
152.5°	1576.8	1604.1	1631.5	1638.3	1695.3	1771.3	1809.2	1858.7	1957.6	2031.9	2041.5
155°	1633.4	1653.6	1673.8	1678.9	1722.3	1780.2	1809.2	1848.6	1927.3	1986.4	1992.8
157.5°	1675.2	1694.9	1714.6	1719.5	1749.4	1789.3	1809.2	1839.9	1901.1	1947.1	1951.6
160°	1703.5	1718.8	1734.1	1737.9	1761.7	1793.3	1809.2	1835.4	1888.0	1927.3	1929.9
162.5°	1731.8	1743.2	1754.8	1757.6	1774.8	1797.8	1809.2	1831.4	1875.7	1908.9	1911.4
165°	1762.5	1772.8	1783.3	1785.8	1793.6	1804.0	1809.2	1825.1	1856.8	1880.6	1883.2
167.5°	1790.8	1795.7	1800.6	1801.9	1808.4	1817.2	1821.5	1831.9	1852.7	1868.3	1869.4
170°	1809.2	1814.1	1819.1	1820.4	1820.7	1821.2	1821.5	1831.9	1852.7	1868.3	1868.3
172.5°	1819.1	1820.2	1821.2	1821.5	1821.5	1821.5	1821.5	1829.7	1846.1	1858.4	1857.4
175°	1832.6	1832.6	1832.6	1832.6	1828.9	1824.0	1821.5	1826.8	1837.1	1844.9	1844.9
177.5°	1832.6	1832.6	1832.6	1832.6	1829.7	1825.9	1824.0	1828.1	1836.3	1842.4	1841.4
180°	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1037.9	1037.9
2.5°	1108.0	1101.3
5°	1425.0	1431.7
7.5°	1918.9	1915.6
10°	2386.1	2416.2
12.5°	2726.5	2733.2
15°	2933.4	2946.8
17.5°	3013.5	3016.9
20°	3016.9	3010.2
22.5°	2980.2	2973.5
25°	2936.8	2933.4
27.5°	2896.7	2900.0
30°	2880.0	2890.1
32.5°	2880.0	2896.7
35°	2886.7	2903.4
37.5°	2883.4	2903.4
40°	2870.0	2893.4
42.5°	2833.3	2850.0
45°	2776.6	2796.6
47.5°	2703.1	2716.5
50°	2609.7	2623.1
52.5°	2492.9	2496.3
55°	2352.7	2366.1
57.5°	2202.5	2205.9
60°	2035.7	2045.8
62.5°	1858.8	1858.8
65°	1672.0	1678.7
67.5°	1478.4	1495.1
70°	1281.5	1284.9
72.5°	1088.0	1088.0
75°	887.7	891.0
77.5°	697.5	697.5
80°	517.3	520.6
82.5°	357.1	363.7
85°	223.6	223.6
87.5°	103.4	93.5
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.5	539.9
97.5°	1563.5	1349.2
100°	2252.7	1997.4
102.5°	2930.7	2712.1
105°	3795.1	3677.6
107.5°	4361.3	4389.7
110°	4577.2	4699.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4596.4	4784.5
115°	4474.6	4735.3
117.5°	4216.1	4505.3
120°	4007.9	4288.8
122.5°	3805.1	4082.2
125°	3515.8	3771.1
127.5°	3255.6	3470.9
130°	3102.3	3301.2
132.5°	2963.0	3141.3
135°	2772.4	2926.1
137.5°	2619.5	2745.2
140°	2514.6	2632.1
142.5°	2427.6	2528.8
145°	2297.3	2373.8
147.5°	2197.2	2260.6
150°	2134.3	2185.7
152.5°	2080.4	2119.2
155°	2018.5	2044.2
157.5°	1969.5	1987.6
160°	1940.3	1950.7
162.5°	1921.1	1931.0
165°	1893.6	1904.0
167.5°	1873.8	1878.1
170°	1868.3	1868.3
172.5°	1853.7	1849.8
175°	1844.9	1844.9
177.5°	1836.9	1832.6
180°	1832.6	1832.6



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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	5.51	6.32	6.54	7.36	8.76	18.69	19.50	19.72	20.54	21.94
	3H	6.22	6.94	7.25	7.99	9.41	20.53	21.26	21.57	22.31	23.72
	4H	6.51	7.20	7.56	8.25	9.68	21.17	21.86	22.22	22.91	24.34
	6H	6.76	7.40	7.82	8.45	9.89	21.60	22.24	22.66	23.29	24.73
	8H	6.83	7.43	7.89	8.50	9.94	21.72	22.32	22.78	23.40	24.83
	12H	6.84	7.42	7.91	8.48	9.94	21.78	22.36	22.86	23.43	24.89
4H	2H	12.72	13.41	13.78	14.47	15.89	18.96	19.65	20.02	20.70	22.13
	3H	14.29	14.86	15.35	15.94	17.38	21.00	21.58	22.07	22.66	24.10
	4H	14.38	14.91	15.45	15.98	17.44	21.77	22.30	22.84	23.37	24.83
	6H	14.39	14.84	15.47	15.94	17.39	22.30	22.76	23.38	23.85	25.31
	8H	14.36	14.79	15.44	15.87	17.35	22.46	22.89	23.55	23.98	25.45
	12H	14.32	14.70	15.42	15.80	17.28	22.55	22.94	23.65	24.04	25.52
8H	4H	15.82	16.25	16.90	17.33	18.80	21.82	22.25	22.90	23.33	24.81
	6H	16.06	16.41	17.16	17.54	19.01	22.45	22.80	23.55	23.93	25.40
	8H	16.08	16.39	17.19	17.50	18.98	22.67	22.98	23.78	24.09	25.58
	12H	16.04	16.31	17.16	17.42	18.95	22.81	23.08	23.93	24.19	25.71
12H	4H	15.96	16.35	17.06	17.45	18.92	21.77	22.16	22.87	23.26	24.73
	6H	16.32	16.63	17.43	17.74	19.22	22.43	22.74	23.54	23.85	25.34
	8H	16.38	16.66	17.50	17.76	19.29	22.66	22.93	23.78	24.04	25.56