

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: P937613

Luminaire Tested: SQ4-FB-100U-100D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937613
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

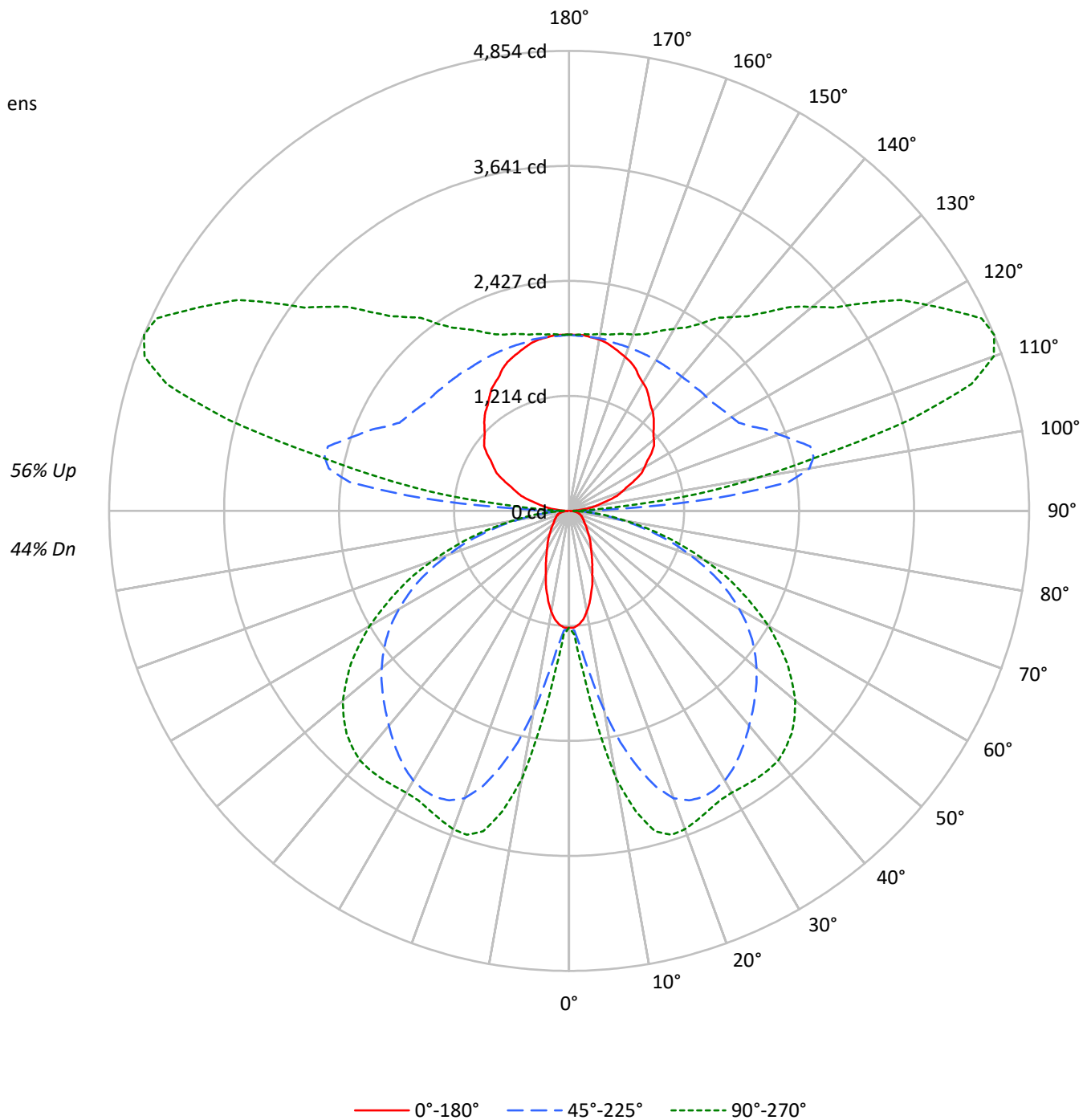
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21596.0 lumens
Efficiency: N/A
Efficacy: 124.1 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: General Diffuse

Input Watts (W): 174
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9			9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3813	3813	3813
5°	3726	4408	5125
10°	3381	6427	8496
15°	2875	8399	10259
20°	2341	9735	10456
25°	1954	10190	10243
30°	1648	10257	10224
35°	1458	10089	10488
40°	1271	9870	10761
45°	1152	9711	10804
50°	1058	9569	10625
55°	1014	9359	10154
60°	1039	8952	9410
65°	1083	8331	8388
70°	1156	7271	7087
75°	1287	5933	5530
80°	1415	4120	3726
85°	1283	2190	1908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10804 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.5	0.7
10°-20°	706.7	3.3
20°-30°	1236.1	5.7
30°-40°	1591.3	7.4
40°-50°	1777.4	8.2
50°-60°	1702.3	7.9
60°-70°	1349.1	6.2
70°-80°	793.3	3.7
80°-90°	227.5	1.1
90°-100°	906.3	4.2
100°-110°	2382.7	11.0
110°-120°	2470.6	11.4
120°-130°	1981.7	9.2
130°-140°	1555.0	7.2
140°-150°	1193.5	5.5
150°-160°	859.5	4.0
160°-170°	525.9	2.4
170°-180°	177.7	0.8
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0°-30°	2102.3	9.7
0°-40°	3693.5	17.1
0°-60°	7173.2	33.2
0°-90°	9543.1	44.2
90°-120°	5759.6	26.7
90°-150°	10489.8	48.6
90°-180°	12053.0	55.8
0°-180°	21596.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1201	1288	1451	1641	1700	111
15°	900	1661	2798	3393	3500	250
25°	575	1883	3333	3480	3484	265
35°	388	1800	3139	3318	3448	243
45°	266	1435	2774	3179	3322	205
55°	190	912	2354	2735	2810	173
65°	151	484	1748	1966	1994	149
75°	111	297	959	1054	1058	116
85°	40	91	238	262	266	42
90°	12	35	95	47	47	13
95°	120	469	1561	805	548	133
105°	429	650	2634	3999	3731	455
115°	762	926	2110	4209	4804	753
125°	1061	1189	1919	3243	3826	942
135°	1264	1391	1859	2618	2969	978
145°	1466	1560	1836	2234	2408	919
155°	1657	1703	1836	2015	2074	761
165°	1788	1812	1836	1908	1932	505
175°	1859	1859	1848	1872	1872	176
180°	1859	1859	1859	1859	1859	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7
2.5°	1232.7	1232.7	1240.6	1244.6	1252.5	1256.5	1264.4	1272.3	1296.1	1300.1	1308.0
5°	1201.0	1216.8	1268.4	1288.2	1343.7	1419.0	1450.7	1502.2	1609.2	1640.9	1660.7
7.5°	1153.4	1189.1	1315.9	1347.6	1486.3	1684.5	1767.8	1878.7	2049.2	2132.4	2199.8
10°	1078.1	1153.4	1379.3	1454.6	1680.6	1981.8	2136.4	2291.0	2548.6	2663.5	2707.1
12.5°	994.9	1117.7	1446.7	1549.8	1874.8	2314.7	2501.0	2671.5	2964.8	3119.4	3143.1
15°	899.7	1066.2	1510.1	1660.7	2080.9	2592.2	2798.3	3008.4	3281.9	3392.8	3420.6
17.5°	816.5	1026.6	1569.6	1728.1	2239.4	2841.9	3052.0	3226.4	3448.3	3523.6	3543.5
20°	713.4	963.2	1609.2	1815.3	2405.9	3024.2	3226.4	3361.1	3511.7	3559.3	3567.2
22.5°	638.1	895.8	1633.0	1847.0	2516.9	3135.2	3305.6	3412.7	3515.7	3531.6	3535.5
25°	574.7	820.5	1629.0	1882.7	2612.0	3202.6	3333.4	3412.7	3472.1	3480.0	3480.0
27.5°	515.3	737.2	1613.2	1890.6	2683.4	3218.4	3321.5	3377.0	3404.7	3420.6	3420.6
30°	463.7	658.0	1573.5	1874.8	2715.1	3202.6	3285.8	3313.6	3341.3	3365.1	3377.0
32.5°	424.1	582.6	1514.1	1843.1	2719.0	3163.0	3222.4	3238.3	3277.9	3333.4	3353.2
35°	388.4	507.3	1446.7	1799.5	2695.2	3099.5	3139.2	3155.0	3234.3	3317.5	3345.3
37.5°	352.8	451.9	1359.5	1724.2	2659.6	3024.2	3052.0	3079.7	3202.6	3301.7	3333.4
40°	317.1	404.3	1256.5	1640.9	2604.1	2933.1	2956.8	3000.4	3163.0	3277.9	3309.6
42.5°	289.3	364.7	1145.5	1553.7	2532.7	2830.0	2865.7	2929.1	3115.4	3238.3	3273.9
45°	265.6	325.0	1026.6	1434.8	2441.6	2723.0	2774.5	2861.7	3059.9	3178.8	3210.5
47.5°	241.8	297.3	903.7	1312.0	2342.5	2616.0	2683.4	2782.4	2984.6	3099.5	3127.3
50°	222.0	269.5	780.8	1181.2	2235.5	2501.0	2580.3	2683.4	2889.5	2996.5	3032.2
52.5°	206.1	245.7	665.9	1050.4	2112.6	2382.1	2473.3	2580.3	2774.5	2877.6	2901.4
55°	190.3	225.9	566.8	911.6	1985.8	2255.3	2354.4	2457.4	2647.7	2734.9	2750.7
57.5°	182.3	210.1	483.6	780.8	1851.0	2112.6	2223.6	2318.7	2497.1	2564.4	2580.3
60°	170.4	198.2	420.1	669.8	1704.3	1977.8	2073.0	2168.1	2318.7	2374.2	2386.1
62.5°	158.5	190.3	372.6	562.8	1553.7	1819.3	1914.4	2001.6	2128.5	2168.1	2183.9
65°	150.6	182.3	336.9	483.6	1399.2	1652.8	1747.9	1823.3	1926.3	1965.9	1973.9
67.5°	142.7	174.4	309.2	416.2	1244.6	1486.3	1557.7	1629.0	1708.3	1747.9	1751.9
70°	130.8	166.5	285.4	368.6	1086.0	1296.1	1355.6	1430.9	1494.3	1514.1	1526.0
72.5°	122.9	154.6	269.5	332.9	923.5	1113.8	1169.3	1212.9	1268.4	1288.2	1288.2
75°	111.0	138.7	253.7	297.3	757.0	911.6	959.2	1002.8	1046.4	1054.3	1042.4
77.5°	99.1	122.9	218.0	249.7	590.6	721.4	761.0	784.8	820.5	828.4	832.4
80°	83.2	107.0	170.4	194.2	428.1	531.1	558.9	578.7	610.4	610.4	618.3
82.5°	63.4	83.2	122.9	138.7	289.3	364.7	388.4	400.3	420.1	420.1	420.1
85°	39.6	51.5	79.3	91.2	174.4	222.0	237.8	241.8	257.6	261.6	261.6
87.5°	19.8	27.7	51.5	55.5	91.2	114.9	114.9	122.9	122.9	118.9	114.9
90°	12.5	22.5	32.4	34.9	54.9	81.5	94.8	84.3	63.2	47.4	47.4
92.5°	49.9	134.7	219.6	240.8	338.6	468.9	534.1	468.1	336.1	237.1	227.7
95°	119.8	275.1	430.4	469.2	833.1	1318.4	1561.0	1393.0	1056.9	804.8	776.2
97.5°	207.1	344.1	481.1	515.4	1122.2	1931.3	2335.9	2229.7	2017.3	1858.0	1803.7
100°	274.5	398.7	522.9	554.0	1227.4	2125.3	2574.3	2582.1	2597.6	2609.2	2544.5
102.5°	331.9	447.8	563.7	592.7	1275.7	2186.4	2641.7	2777.0	3047.6	3250.6	3195.1
105°	429.3	527.4	625.6	650.1	1311.5	2193.3	2634.2	2937.6	3544.3	3999.3	3969.5
107.5°	529.1	620.6	712.1	735.0	1318.1	2095.6	2484.4	2907.6	3753.9	4388.6	4395.8
110°	596.5	679.1	761.7	782.4	1308.1	2009.1	2359.6	2832.7	3778.8	4488.4	4519.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	662.6	741.4	820.1	839.8	1308.6	1933.6	2246.1	2730.3	3698.6	4424.8	4472.5
115°	762.4	835.1	907.7	925.9	1320.6	1846.9	2110.1	2576.5	3509.3	4208.9	4275.0
117.5°	861.0	927.0	993.0	1009.5	1345.2	1792.7	2016.5	2437.4	3279.3	3910.7	3984.0
120°	918.4	980.5	1042.7	1058.2	1365.2	1774.5	1979.1	2363.7	3132.9	3709.8	3781.1
122.5°	974.6	1037.3	1099.9	1115.6	1393.9	1764.9	1950.4	2296.7	2989.4	3508.9	3579.2
125°	1060.7	1117.8	1174.9	1189.2	1432.5	1757.0	1919.2	2213.4	2801.8	3243.1	3307.8
127.5°	1130.5	1188.2	1245.9	1260.3	1471.2	1752.4	1893.0	2145.6	2650.8	3029.7	3084.3
130°	1168.0	1230.1	1292.2	1307.7	1499.5	1755.2	1883.0	2107.9	2557.7	2895.0	2945.5
132.5°	1206.7	1268.8	1330.9	1346.4	1522.3	1756.9	1874.2	2075.5	2478.2	2780.2	2825.4
135°	1264.1	1320.6	1377.2	1391.3	1547.3	1755.3	1859.3	2027.9	2365.0	2617.9	2656.9
137.5°	1322.7	1378.7	1434.7	1448.7	1584.7	1766.1	1856.8	1999.3	2284.4	2498.2	2530.1
140°	1371.4	1423.0	1474.5	1487.4	1607.6	1767.9	1848.0	1971.1	2217.4	2402.1	2431.9
142.5°	1408.8	1456.5	1504.2	1516.1	1626.7	1774.2	1848.0	1956.2	2172.5	2334.7	2360.3
145°	1466.2	1507.8	1549.4	1559.8	1651.7	1774.3	1835.6	1924.0	2100.9	2233.6	2253.0
147.5°	1523.6	1564.1	1604.6	1614.7	1688.3	1786.5	1835.6	1905.2	2044.4	2148.8	2164.9
150°	1561.0	1597.6	1634.2	1643.4	1707.5	1792.9	1835.6	1894.4	2011.9	2100.1	2113.1
152.5°	1599.7	1627.4	1655.2	1662.1	1719.9	1797.0	1835.6	1885.8	1986.1	2061.4	2071.2
155°	1657.1	1677.6	1698.2	1703.3	1747.4	1806.2	1835.6	1875.5	1955.3	2015.2	2021.7
157.5°	1699.5	1719.5	1739.5	1744.5	1774.9	1815.4	1835.6	1866.6	1928.7	1975.3	1979.9
160°	1728.2	1743.8	1759.3	1763.2	1787.3	1819.5	1835.6	1862.2	1915.4	1955.3	1957.9
162.5°	1756.9	1768.5	1780.2	1783.1	1800.6	1823.9	1835.6	1858.0	1902.9	1936.6	1939.1
165°	1788.1	1798.6	1809.2	1811.8	1819.7	1830.3	1835.6	1851.7	1883.8	1907.9	1910.5
167.5°	1816.8	1821.8	1826.8	1828.1	1834.7	1843.6	1848.0	1858.6	1879.7	1895.5	1896.6
170°	1835.6	1840.6	1845.6	1846.8	1847.2	1847.7	1848.0	1858.6	1879.7	1895.5	1895.5
172.5°	1845.5	1846.6	1847.7	1848.0	1848.0	1848.0	1848.0	1856.3	1873.0	1885.5	1884.5
175°	1859.3	1859.3	1859.3	1859.3	1855.5	1850.5	1848.0	1853.3	1863.8	1871.7	1871.7
177.5°	1859.3	1859.3	1859.3	1859.3	1856.4	1852.5	1850.5	1854.7	1863.0	1869.2	1868.1
180°	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1232.7	1232.7
2.5°	1315.9	1308.0
5°	1692.5	1700.4
7.5°	2279.1	2275.1
10°	2834.0	2869.6
12.5°	3238.3	3246.2
15°	3484.0	3499.9
17.5°	3579.1	3583.1
20°	3583.1	3575.2
22.5°	3539.5	3531.6
25°	3488.0	3484.0
27.5°	3440.4	3444.4
30°	3420.6	3432.5
32.5°	3420.6	3440.4
35°	3428.5	3448.3
37.5°	3424.5	3448.3
40°	3408.7	3436.4
42.5°	3365.1	3384.9
45°	3297.7	3321.5
47.5°	3210.5	3226.4
50°	3099.5	3115.4
52.5°	2960.8	2964.8
55°	2794.3	2810.2
57.5°	2616.0	2619.9
60°	2417.8	2429.7
62.5°	2207.7	2207.7
65°	1985.8	1993.7
67.5°	1755.9	1775.7
70°	1522.0	1526.0
72.5°	1292.1	1292.1
75°	1054.3	1058.3
77.5°	828.4	828.4
80°	614.4	618.3
82.5°	424.1	432.0
85°	265.6	265.6
87.5°	122.9	111.0
90°	47.4	47.4
92.5°	189.9	152.2
95°	662.0	547.8
97.5°	1586.3	1368.9
100°	2285.5	2026.5
102.5°	2973.3	2751.5
105°	3850.2	3731.0
107.5°	4424.7	4453.5
110°	4643.7	4768.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4663.3	4854.1
115°	4539.6	4804.1
117.5°	4277.4	4570.8
120°	4066.1	4351.2
122.5°	3860.3	4141.5
125°	3566.8	3825.8
127.5°	3302.9	3521.4
130°	3147.3	3349.2
132.5°	3006.2	3187.0
135°	2812.7	2968.6
137.5°	2657.6	2785.2
140°	2551.2	2670.4
142.5°	2462.9	2565.5
145°	2330.7	2408.3
147.5°	2229.2	2293.5
150°	2165.3	2217.4
152.5°	2110.6	2150.0
155°	2047.8	2073.9
157.5°	1998.2	2016.5
160°	1968.5	1979.1
162.5°	1949.1	1959.1
165°	1921.1	1931.6
167.5°	1901.0	1905.4
170°	1895.5	1895.5
172.5°	1880.6	1876.7
175°	1871.7	1871.7
177.5°	1863.7	1859.3
180°	1859.3	1859.3



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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	5.11	5.95	6.10	6.96	8.31	18.30	19.14	19.29	20.16	21.50
	3H	5.81	6.57	6.82	7.59	8.96	20.14	20.90	21.15	21.92	23.29
	4H	6.11	6.83	7.13	7.85	9.23	20.79	21.51	21.81	22.53	23.91
	6H	6.36	7.02	7.39	8.05	9.44	21.22	21.89	22.25	22.92	24.31
	8H	6.42	7.06	7.46	8.10	9.49	21.35	21.98	22.38	23.02	24.41
	12H	6.44	7.04	7.48	8.08	9.49	21.42	22.02	22.46	23.06	24.47
4H	2H	12.33	13.05	13.35	14.07	15.45	18.57	19.29	19.60	20.31	21.69
	3H	13.89	14.49	14.93	15.55	16.94	20.62	21.22	21.65	22.27	23.66
	4H	13.99	14.54	15.03	15.58	17.00	21.39	21.94	22.43	22.99	24.40
	6H	14.00	14.47	15.05	15.54	16.95	21.93	22.41	22.98	23.48	24.88
	8H	13.97	14.42	15.03	15.48	16.90	22.09	22.54	23.15	23.60	25.03
	12H	13.93	14.33	15.00	15.41	16.84	22.19	22.59	23.26	23.67	25.10
8H	4H	15.43	15.88	16.49	16.94	18.36	21.45	21.89	22.50	22.95	24.38
	6H	15.67	16.04	16.75	17.15	18.57	22.08	22.45	23.16	23.55	24.97
	8H	15.69	16.02	16.78	17.10	18.54	22.30	22.63	23.39	23.71	25.15
	12H	15.66	15.94	16.75	17.03	18.51	22.45	22.73	23.54	23.82	25.30
12H	4H	15.58	15.98	16.65	17.05	18.48	21.40	21.80	22.47	22.88	24.31
	6H	15.93	16.26	17.02	17.34	18.79	22.06	22.39	23.15	23.47	24.91
	8H	16.00	16.29	17.09	17.37	18.85	22.29	22.58	23.38	23.66	25.14