

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: P937801

Luminaire Tested: SQ4-FB-100U-125D-B40-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937801
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-B40-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

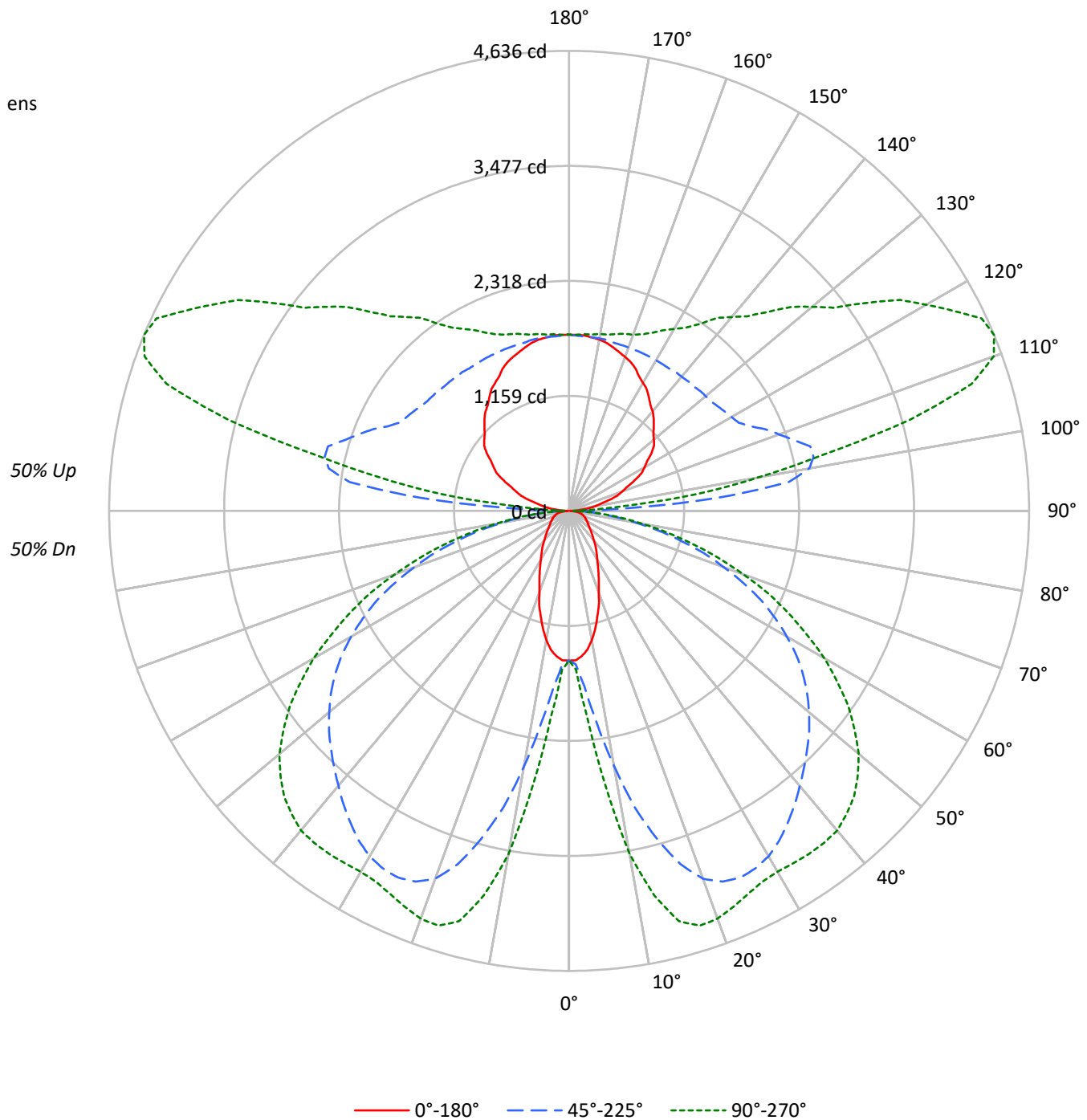
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23181.7 lumens
Efficiency: N/A
Efficacy: 112.3 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): 206.4
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

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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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4664	4664	4664
5°	4558	5392	6269
10°	4136	7861	10393
15°	3516	10273	12549
20°	2864	11908	12789
25°	2390	12464	12529
30°	2016	12546	12506
35°	1784	12341	12829
40°	1555	12074	13163
45°	1409	11879	13215
50°	1294	11704	12996
55°	1240	11448	12420
60°	1271	10950	11511
65°	1324	10191	10261
70°	1415	8893	8668
75°	1573	7258	6765
80°	1731	5039	4559
85°	1572	2678	2333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13215 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.0	0.8
10°-20°	864.4	3.7
20°-30°	1512.0	6.5
30°-40°	1946.4	8.4
40°-50°	2174.1	9.4
50°-60°	2082.3	9.0
60°-70°	1650.2	7.1
70°-80°	970.4	4.2
80°-90°	276.3	1.2
90°-100°	865.5	3.7
100°-110°	2275.5	9.8
110°-120°	2359.4	10.2
120°-130°	1892.6	8.2
130°-140°	1485.0	6.4
140°-150°	1139.8	4.9
150°-160°	820.8	3.5
160°-170°	502.2	2.2
170°-180°	169.7	0.7
0°-30°	2571.5	11.1
0°-40°	4517.9	19.5
0°-60°	8774.2	37.8
0°-90°	11671.2	50.3
90°-120°	5500.5	23.7
90°-150°	10017.8	43.2
90°-180°	11511.0	49.7
0°-180°	23181.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1508	1508	1508	1508	1508	
5°	1469	1576	1774	2007	2080	136
15°	1100	2031	3423	4150	4281	306
25°	703	2303	4077	4257	4262	324
35°	475	2201	3840	4058	4218	297
45°	325	1755	3394	3888	4063	251
55°	233	1115	2880	3345	3437	212
65°	184	592	2138	2405	2439	183
75°	136	364	1173	1290	1294	142
85°	48	112	291	320	325	51
90°	12	33	90	45	45	13
95°	114	448	1491	769	523	127
105°	410	621	2516	3819	3563	435
115°	728	884	2015	4020	4588	719
125°	1013	1136	1833	3097	3654	899
135°	1207	1329	1776	2500	2835	934
145°	1400	1490	1753	2133	2300	877
155°	1582	1627	1753	1924	1981	727
165°	1708	1730	1753	1822	1845	482
175°	1776	1776	1765	1788	1788	169
180°	1776	1776	1776	1776	1776	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8
2.5°	1507.8	1507.8	1517.5	1522.4	1532.0	1536.9	1546.6	1556.3	1585.4	1590.3	1599.9
5°	1469.0	1488.4	1551.4	1575.7	1643.6	1735.7	1774.5	1837.5	1968.4	2007.2	2031.4
7.5°	1410.8	1454.5	1609.7	1648.4	1818.1	2060.5	2162.3	2298.1	2506.6	2608.4	2690.8
10°	1318.8	1410.8	1687.2	1779.3	2055.6	2424.1	2613.2	2802.3	3117.4	3258.0	3311.4
12.5°	1217.0	1367.2	1769.6	1895.7	2293.2	2831.4	3059.2	3267.7	3626.5	3815.6	3844.6
15°	1100.5	1304.1	1847.2	2031.4	2545.4	3170.8	3422.8	3679.8	4014.3	4150.1	4184.0
17.5°	998.7	1255.7	1919.9	2113.8	2739.2	3476.2	3733.2	3946.4	4217.9	4310.1	4334.4
20°	872.7	1178.1	1968.4	2220.5	2942.9	3699.2	3946.4	4111.3	4295.6	4353.7	4363.4
22.5°	780.5	1095.7	1997.5	2259.2	3078.6	3835.0	4043.5	4174.3	4300.4	4319.8	4324.6
25°	703.0	1003.6	1992.6	2302.9	3195.0	3917.4	4077.4	4174.3	4247.1	4256.7	4256.7
27.5°	630.3	901.8	1973.2	2312.6	3282.2	3936.8	4062.9	4130.7	4164.7	4184.0	4184.0
30°	567.3	804.8	1924.7	2293.2	3321.0	3917.4	4019.2	4053.1	4087.1	4116.1	4130.7
32.5°	518.8	712.7	1852.0	2254.5	3325.9	3868.9	3941.7	3961.1	4009.5	4077.4	4101.6
35°	475.1	620.6	1769.6	2201.1	3296.9	3791.4	3839.8	3859.3	3956.2	4058.0	4091.9
37.5°	431.5	552.7	1662.9	2109.0	3253.2	3699.2	3733.2	3767.1	3917.4	4038.6	4077.4
40°	387.8	494.5	1536.9	2007.2	3185.3	3587.7	3616.8	3670.2	3868.9	4009.5	4048.2
42.5°	353.9	446.1	1401.2	1900.5	3098.0	3461.7	3505.3	3582.9	3810.7	3961.1	4004.7
45°	324.8	397.6	1255.7	1755.1	2986.5	3330.8	3393.8	3500.5	3742.8	3888.3	3927.1
47.5°	295.8	363.7	1105.4	1604.8	2865.3	3199.8	3282.2	3403.4	3650.8	3791.4	3825.3
50°	271.5	329.7	955.1	1444.8	2734.5	3059.2	3156.2	3282.2	3534.4	3665.3	3708.9
52.5°	252.1	300.6	814.5	1284.8	2584.1	2913.8	3025.3	3156.2	3393.8	3519.8	3548.9
55°	232.7	276.4	693.3	1115.1	2428.9	2758.6	2879.9	3006.0	3238.6	3345.3	3364.7
57.5°	223.0	257.0	591.5	955.1	2264.1	2584.1	2719.8	2836.3	3054.4	3136.8	3156.2
60°	208.5	242.4	513.9	819.4	2084.8	2419.3	2535.6	2652.0	2836.3	2904.1	2918.7
62.5°	194.0	232.7	455.7	688.5	1900.5	2225.3	2341.7	2448.3	2603.5	2652.0	2671.4
65°	184.2	223.0	412.1	591.5	1711.5	2021.7	2138.1	2230.2	2356.3	2404.7	2414.4
67.5°	174.6	213.3	378.2	509.1	1522.4	1818.1	1905.3	1992.6	2089.6	2138.1	2142.9
70°	160.0	203.6	349.1	450.9	1328.4	1585.4	1658.1	1750.2	1827.8	1852.0	1866.5
72.5°	150.3	189.1	329.7	407.2	1129.7	1362.4	1430.2	1483.6	1551.4	1575.7	1575.7
75°	135.7	169.7	310.3	363.7	926.0	1115.1	1173.3	1226.6	1279.9	1289.6	1275.1
77.5°	121.2	150.3	266.6	305.4	722.4	882.4	930.8	960.0	1003.6	1013.3	1018.1
80°	101.8	130.9	208.5	237.6	523.6	649.7	683.6	707.8	746.6	746.6	756.4
82.5°	77.5	101.8	150.3	169.7	353.9	446.1	475.1	489.6	513.9	513.9	513.9
85°	48.5	63.0	96.9	111.5	213.3	271.5	290.9	295.8	315.2	320.0	320.0
87.5°	24.3	33.9	63.0	67.9	111.5	140.6	140.6	150.3	150.3	145.4	140.6
90°	11.9	21.5	30.9	33.3	52.4	77.8	90.5	80.5	60.4	45.3	45.3
92.5°	47.7	128.6	209.7	230.0	323.4	447.8	510.1	447.0	321.0	226.4	217.5
95°	114.4	262.7	411.0	448.1	795.6	1259.1	1490.8	1330.3	1009.3	768.6	741.3
97.5°	197.8	328.6	459.5	492.2	1071.7	1844.4	2230.8	2129.4	1926.5	1774.4	1722.5
100°	262.1	380.8	499.4	529.1	1172.2	2029.7	2458.5	2465.9	2480.7	2491.8	2430.0
102.5°	317.0	427.6	538.3	566.0	1218.3	2088.0	2522.8	2652.0	2910.5	3104.3	3051.3
105°	410.0	503.7	597.4	620.8	1252.5	2094.6	2515.7	2805.4	3384.8	3819.3	3790.9
107.5°	505.3	592.7	680.1	701.9	1258.8	2001.3	2372.6	2776.8	3585.0	4191.1	4198.0
110°	569.7	648.5	727.4	747.2	1249.2	1918.7	2253.4	2705.2	3608.8	4286.4	4316.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	632.8	708.0	783.2	802.0	1249.7	1846.6	2145.0	2607.4	3532.2	4225.7	4271.2
115°	728.1	797.5	866.9	884.2	1261.2	1763.8	2015.1	2460.6	3351.4	4019.5	4082.6
117.5°	822.3	885.3	948.3	964.1	1284.7	1712.0	1925.8	2327.7	3131.7	3734.7	3804.7
120°	877.1	936.4	995.8	1010.6	1303.8	1694.6	1890.0	2257.3	2991.9	3542.9	3611.0
122.5°	930.7	990.6	1050.4	1065.4	1331.2	1685.5	1862.6	2193.3	2854.9	3351.0	3418.1
125°	1013.0	1067.5	1122.0	1135.7	1368.0	1677.9	1832.8	2113.8	2675.7	3097.2	3158.9
127.5°	1079.6	1134.7	1189.8	1203.6	1405.0	1673.5	1807.8	2049.0	2531.5	2893.4	2945.5
130°	1115.4	1174.7	1234.1	1248.9	1432.0	1676.2	1798.3	2013.0	2442.6	2764.7	2813.0
132.5°	1152.4	1211.7	1271.0	1285.8	1453.8	1677.8	1789.9	1982.1	2366.7	2655.1	2698.3
135°	1207.2	1261.2	1315.2	1328.7	1477.7	1676.3	1775.6	1936.6	2258.6	2500.1	2537.3
137.5°	1263.2	1316.7	1370.1	1383.5	1513.4	1686.6	1773.2	1909.3	2181.6	2385.8	2416.2
140°	1309.7	1359.0	1408.1	1420.5	1535.3	1688.3	1764.8	1882.4	2117.6	2294.0	2322.5
142.5°	1345.4	1391.0	1436.5	1447.9	1553.5	1694.4	1764.8	1868.2	2074.7	2229.6	2254.1
145°	1400.2	1439.9	1479.7	1489.6	1577.4	1694.5	1753.0	1837.4	2006.4	2133.1	2151.6
147.5°	1455.0	1493.7	1532.4	1542.0	1612.3	1706.1	1753.0	1819.5	1952.4	2052.1	2067.5
150°	1490.8	1525.7	1560.7	1569.4	1630.7	1712.2	1753.0	1809.2	1921.4	2005.6	2018.0
152.5°	1527.7	1554.2	1580.7	1587.3	1642.5	1716.1	1753.0	1800.9	1896.7	1968.6	1978.0
155°	1582.5	1602.1	1621.8	1626.7	1668.8	1724.9	1753.0	1791.1	1867.3	1924.5	1930.7
157.5°	1623.0	1642.1	1661.2	1666.0	1695.0	1733.7	1753.0	1782.6	1841.9	1886.4	1890.8
160°	1650.4	1665.3	1680.1	1683.9	1706.9	1737.6	1753.0	1778.4	1829.2	1867.3	1869.8
162.5°	1677.8	1688.9	1700.1	1702.9	1719.6	1741.8	1753.0	1774.4	1817.3	1849.5	1851.8
165°	1707.6	1717.7	1727.8	1730.3	1737.8	1747.9	1753.0	1768.4	1799.0	1822.0	1824.5
167.5°	1735.0	1739.8	1744.6	1745.8	1752.1	1760.6	1764.8	1775.0	1795.1	1810.2	1811.3
170°	1753.0	1757.8	1762.5	1763.7	1764.1	1764.6	1764.8	1775.0	1795.1	1810.2	1810.2
172.5°	1762.5	1763.5	1764.6	1764.8	1764.8	1764.8	1764.8	1772.8	1788.7	1800.7	1799.7
175°	1775.6	1775.6	1775.6	1775.6	1772.0	1767.2	1764.8	1769.9	1779.9	1787.5	1787.5
177.5°	1775.6	1775.6	1775.6	1775.6	1772.9	1769.1	1767.2	1771.2	1779.2	1785.1	1784.0
180°	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1507.8	1507.8
2.5°	1609.7	1599.9
5°	2070.2	2079.9
7.5°	2787.7	2782.9
10°	3466.5	3510.1
12.5°	3961.1	3970.7
15°	4261.6	4281.0
17.5°	4378.0	4382.8
20°	4382.8	4373.1
22.5°	4329.5	4319.8
25°	4266.5	4261.6
27.5°	4208.3	4213.2
30°	4184.0	4198.6
32.5°	4184.0	4208.3
35°	4193.7	4217.9
37.5°	4188.9	4217.9
40°	4169.5	4203.4
42.5°	4116.1	4140.4
45°	4033.7	4062.9
47.5°	3927.1	3946.4
50°	3791.4	3810.7
52.5°	3621.6	3626.5
55°	3418.0	3437.4
57.5°	3199.8	3204.7
60°	2957.4	2972.0
62.5°	2700.5	2700.5
65°	2428.9	2438.7
67.5°	2147.8	2172.1
70°	1861.8	1866.5
72.5°	1580.5	1580.5
75°	1289.6	1294.5
77.5°	1013.3	1013.3
80°	751.5	756.4
82.5°	518.8	528.5
85°	324.8	324.8
87.5°	150.3	135.7
90°	45.3	45.3
92.5°	181.4	145.4
95°	632.2	523.1
97.5°	1514.9	1307.3
100°	2182.7	1935.3
102.5°	2839.5	2627.7
105°	3676.9	3563.1
107.5°	4225.6	4253.1
110°	4434.7	4553.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4453.5	4635.7
115°	4335.3	4587.9
117.5°	4084.9	4365.1
120°	3883.1	4155.4
122.5°	3686.6	3955.1
125°	3406.3	3653.6
127.5°	3154.3	3362.9
130°	3005.7	3198.5
132.5°	2870.9	3043.6
135°	2686.1	2835.0
137.5°	2538.0	2659.9
140°	2436.4	2550.2
142.5°	2352.1	2450.1
145°	2225.8	2299.9
147.5°	2128.9	2190.3
150°	2067.9	2117.6
152.5°	2015.6	2053.2
155°	1955.6	1980.6
157.5°	1908.3	1925.8
160°	1879.9	1890.0
162.5°	1861.4	1870.9
165°	1834.7	1844.7
167.5°	1815.5	1819.7
170°	1810.2	1810.2
172.5°	1796.0	1792.2
175°	1787.5	1787.5
177.5°	1779.8	1775.6
180°	1775.6	1775.6



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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	6.39	7.30	7.34	8.26	9.53	19.58	20.49	20.53	21.46	22.72
	3H	7.10	7.91	8.06	8.89	10.17	21.43	22.24	22.39	23.22	24.51
	4H	7.40	8.17	8.37	9.15	10.44	22.08	22.85	23.05	23.83	25.13
	6H	7.65	8.36	8.64	9.35	10.66	22.52	23.23	23.50	24.22	25.52
	8H	7.72	8.40	8.71	9.40	10.71	22.64	23.32	23.63	24.32	25.63
	12H	7.74	8.39	8.74	9.38	10.71	22.72	23.36	23.71	24.36	25.69
4H	2H	13.62	14.39	14.60	15.37	16.67	19.86	20.63	20.84	21.61	22.91
	3H	15.19	15.84	16.18	16.85	18.15	21.92	22.56	22.90	23.57	24.88
	4H	15.29	15.88	16.28	16.88	18.21	22.69	23.28	23.69	24.28	25.61
	6H	15.30	15.81	16.31	16.84	18.17	23.24	23.75	24.24	24.77	26.10
	8H	15.28	15.76	16.29	16.78	18.12	23.40	23.88	24.41	24.90	26.24
	12H	15.24	15.67	16.27	16.70	18.05	23.50	23.93	24.53	24.97	26.32
8H	4H	16.74	17.22	17.75	18.24	19.58	22.75	23.23	23.76	24.25	25.59
	6H	16.98	17.38	18.02	18.44	19.78	23.39	23.78	24.42	24.85	26.19
	8H	17.00	17.35	18.04	18.40	19.76	23.61	23.96	24.65	25.01	26.37
	12H	16.97	17.28	18.02	18.32	19.73	23.76	24.07	24.81	25.11	26.51
12H	4H	16.89	17.32	17.92	18.35	19.70	22.71	23.14	23.74	24.17	25.52
	6H	17.24	17.59	18.29	18.64	20.00	23.37	23.72	24.42	24.77	26.13
	8H	17.32	17.62	18.36	18.66	20.07	23.61	23.91	24.65	24.96	26.36