

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: P937709

Luminaire Tested: SQ4-FB-100U-125D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937709
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-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

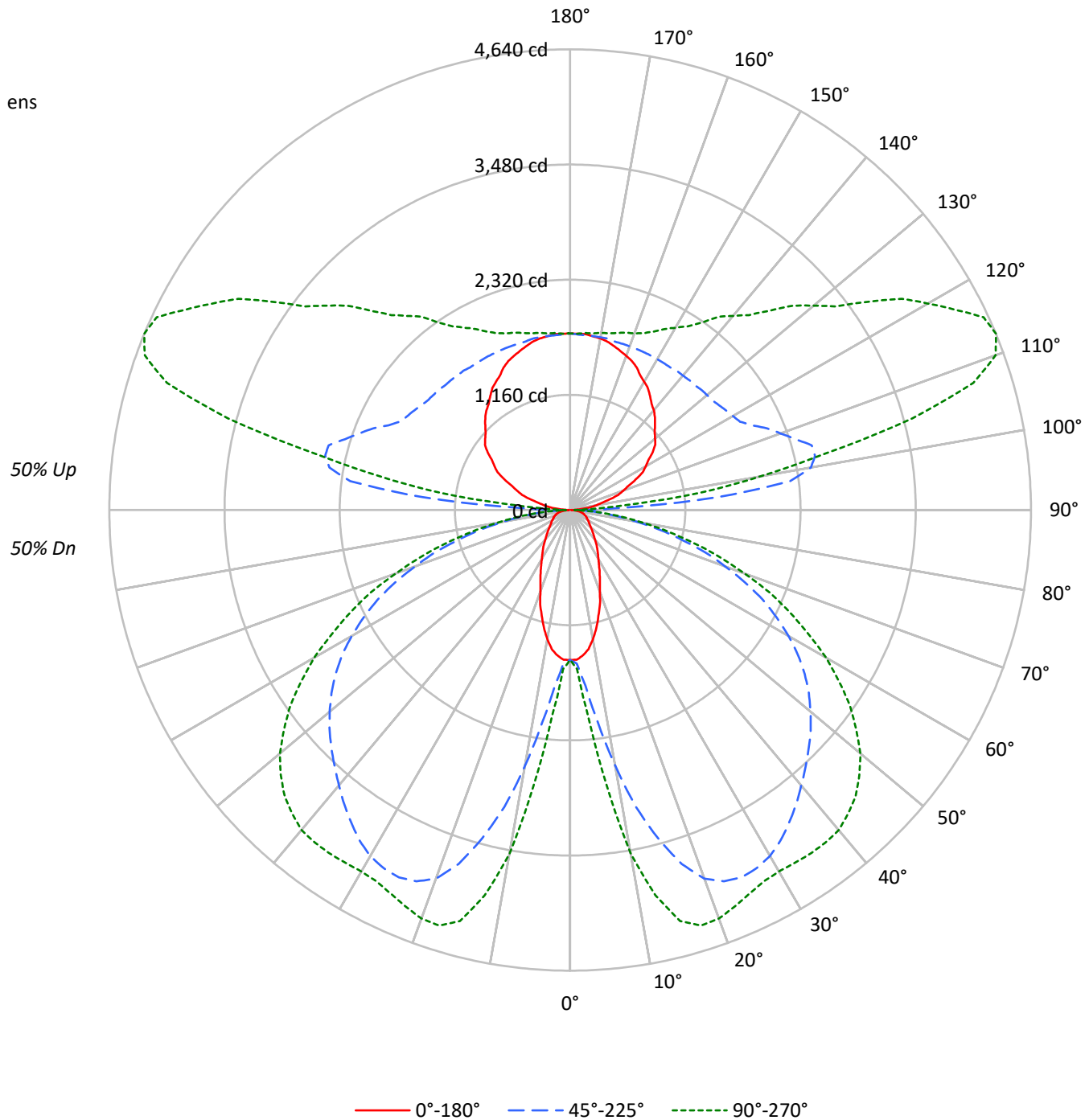
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23206.0 lumens
Efficiency: N/A
Efficacy: 112.4 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 (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	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°	4669	4669	4669
5°	4562	5397	6275
10°	4140	7869	10404
15°	3520	10284	12562
20°	2867	11920	12803
25°	2392	12477	12543
30°	2019	12559	12519
35°	1785	12354	12843
40°	1557	12086	13177
45°	1410	11891	13229
50°	1295	11717	13010
55°	1242	11459	12433
60°	1273	10961	11523
65°	1326	10201	10271
70°	1415	8902	8677
75°	1574	7265	6772
80°	1733	5045	4563
85°	1575	2681	2335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.2	0.8
10°-20°	865.3	3.7
20°-30°	1513.6	6.5
30°-40°	1948.4	8.4
40°-50°	2176.4	9.4
50°-60°	2084.4	9.0
60°-70°	1651.9	7.1
70°-80°	971.4	4.2
80°-90°	276.6	1.2
90°-100°	866.4	3.7
100°-110°	2277.9	9.8
110°-120°	2361.9	10.2
120°-130°	1894.6	8.2
130°-140°	1486.5	6.4
140°-150°	1141.0	4.9
150°-160°	821.7	3.5
160°-170°	502.8	2.2
170°-180°	169.9	0.7
0°-30°	2574.2	11.1
0°-40°	4522.6	19.5
0°-60°	8783.4	37.8
0°-90°	11683.4	50.3
90°-120°	5506.2	23.7
90°-150°	10028.3	43.2
90°-180°	11523.0	49.7
0°-180°	23206.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1470	1577	1776	2009	2082	136
15°	1102	2034	3426	4154	4286	307
25°	704	2305	4082	4261	4266	324
35°	476	2203	3844	4062	4222	297
45°	325	1757	3397	3892	4067	252
55°	233	1116	2883	3349	3441	212
65°	184	592	2140	2407	2441	183
75°	136	364	1174	1291	1296	142
85°	49	112	291	320	325	51
90°	12	33	91	45	45	13
95°	114	449	1492	769	524	127
105°	410	622	2518	3823	3567	435
115°	729	885	2017	4024	4593	720
125°	1014	1137	1835	3100	3658	900
135°	1208	1330	1778	2503	2838	935
145°	1402	1491	1755	2135	2302	878
155°	1584	1628	1755	1926	1983	728
165°	1709	1732	1755	1824	1847	482
175°	1778	1778	1767	1789	1789	169
180°	1778	1778	1778	1778	1778	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4
2.5°	1509.4	1509.4	1519.1	1524.0	1533.6	1538.5	1548.2	1557.9	1587.1	1591.9	1601.6
5°	1470.5	1489.9	1553.0	1577.3	1645.3	1737.5	1776.3	1839.4	1970.4	2009.3	2033.5
7.5°	1412.3	1456.0	1611.3	1650.2	1820.0	2062.7	2164.6	2300.5	2509.2	2611.1	2693.6
10°	1320.1	1412.3	1689.0	1781.1	2057.8	2426.6	2615.9	2805.2	3120.7	3261.4	3314.8
12.5°	1218.2	1368.6	1771.5	1897.7	2295.6	2834.3	3062.5	3271.1	3630.3	3819.6	3848.7
15°	1101.7	1305.5	1849.1	2033.5	2548.0	3174.1	3426.4	3683.7	4018.5	4154.5	4188.4
17.5°	999.8	1257.0	1921.9	2116.0	2742.1	3479.8	3737.1	3950.6	4222.4	4314.6	4338.9
20°	873.6	1179.3	1970.4	2222.8	2946.0	3703.1	3950.6	4115.6	4300.1	4358.3	4368.0
22.5°	781.3	1096.8	1999.6	2261.6	3081.9	3839.0	4047.7	4178.7	4304.9	4324.3	4329.2
25°	703.7	1004.7	1994.7	2305.3	3198.3	3921.5	4081.6	4178.7	4251.5	4261.2	4261.2
27.5°	631.0	902.8	1975.3	2315.0	3285.7	3940.9	4067.1	4135.0	4169.0	4188.4	4188.4
30°	567.9	805.6	1926.7	2295.6	3324.5	3921.5	4023.4	4057.4	4091.4	4120.5	4135.0
32.5°	519.3	713.5	1854.0	2256.8	3329.4	3872.9	3945.8	3965.2	4013.7	4081.6	4105.9
35°	475.6	621.2	1771.5	2203.4	3300.3	3795.3	3843.8	3863.3	3960.3	4062.2	4096.2
37.5°	431.9	553.2	1664.7	2111.2	3256.6	3703.1	3737.1	3771.0	3921.5	4042.8	4081.6
40°	388.2	495.0	1538.5	2009.3	3188.6	3591.5	3620.6	3674.0	3872.9	4013.7	4052.5
42.5°	354.3	446.5	1402.6	1902.5	3101.3	3465.3	3509.0	3586.6	3814.7	3965.2	4008.9
45°	325.1	398.0	1257.0	1756.9	2989.6	3334.2	3397.3	3504.1	3746.8	3892.4	3931.2
47.5°	296.1	364.0	1106.6	1606.5	2868.3	3203.2	3285.7	3407.0	3654.6	3795.3	3829.3
50°	271.8	330.0	956.1	1446.3	2737.3	3062.5	3159.5	3285.7	3538.1	3669.1	3712.8
52.5°	252.4	300.9	815.4	1286.1	2586.8	2916.9	3028.5	3159.5	3397.3	3523.5	3552.6
55°	233.0	276.7	694.1	1116.2	2431.5	2761.5	2882.9	3009.1	3242.0	3348.8	3368.2
57.5°	223.2	257.3	592.1	956.1	2266.5	2586.8	2722.7	2839.2	3057.6	3140.1	3159.5
60°	208.7	242.6	514.4	820.2	2086.9	2421.8	2538.3	2654.8	2839.2	2907.1	2921.7
62.5°	194.2	233.0	456.2	689.2	1902.5	2227.7	2344.1	2450.9	2606.2	2654.8	2674.2
65°	184.4	223.2	412.5	592.1	1713.2	2023.9	2140.3	2232.5	2358.7	2407.2	2417.0
67.5°	174.8	213.6	378.6	509.6	1524.0	1820.0	1907.3	1994.7	2091.8	2140.3	2145.2
70°	160.1	203.8	349.4	451.3	1329.8	1587.1	1659.8	1752.1	1829.7	1854.0	1868.5
72.5°	150.5	189.3	330.0	407.6	1130.9	1363.8	1431.7	1485.1	1553.0	1577.3	1577.3
75°	135.8	169.9	310.6	364.0	926.9	1116.2	1174.5	1227.9	1281.2	1291.0	1276.5
77.5°	121.3	150.5	266.9	305.7	723.1	883.3	931.8	961.0	1004.7	1014.3	1019.2
80°	101.9	131.1	208.7	237.9	524.2	650.4	684.3	708.6	747.4	747.4	757.2
82.5°	77.6	101.9	150.5	169.9	354.3	446.5	475.6	490.1	514.4	514.4	514.4
85°	48.6	63.1	97.0	111.7	213.6	271.8	291.2	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.7	140.7	150.5	150.5	145.6	140.7
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	209.9	230.2	323.7	448.3	510.6	447.5	321.3	226.7	217.7
95°	114.5	263.0	411.5	448.6	796.4	1260.4	1492.3	1331.7	1010.4	769.4	742.0
97.5°	198.0	329.0	459.9	492.7	1072.8	1846.3	2233.1	2131.6	1928.5	1776.2	1724.3
100°	262.4	381.2	499.9	529.6	1173.4	2031.8	2461.0	2468.5	2483.3	2494.4	2432.5
102.5°	317.3	428.1	538.9	566.6	1219.6	2090.2	2525.5	2654.8	2913.5	3107.6	3054.5
105°	410.4	504.2	598.1	621.5	1253.8	2096.8	2518.3	2808.3	3388.4	3823.3	3794.8
107.5°	505.8	593.3	680.8	702.7	1260.1	2003.4	2375.1	2779.7	3588.7	4195.5	4202.4
110°	570.3	649.2	728.2	748.0	1250.5	1920.7	2255.8	2708.1	3612.5	4290.9	4320.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.4	708.8	784.0	802.8	1251.0	1848.5	2147.3	2610.2	3535.9	4230.1	4275.7
115°	728.9	798.4	867.8	885.2	1262.5	1765.6	2017.3	2463.1	3354.9	4023.7	4086.9
117.5°	823.1	886.2	949.3	965.1	1286.0	1713.8	1927.8	2330.2	3135.0	3738.6	3808.7
120°	878.0	937.4	996.8	1011.6	1305.1	1696.4	1892.0	2259.7	2995.1	3546.6	3614.7
122.5°	931.7	991.7	1051.5	1066.5	1332.6	1687.2	1864.6	2195.6	2857.9	3354.5	3421.7
125°	1014.0	1068.6	1123.2	1136.9	1369.5	1679.7	1834.8	2116.0	2678.5	3100.4	3162.3
127.5°	1080.8	1135.9	1191.1	1204.8	1406.5	1675.3	1809.7	2051.2	2534.2	2896.4	2948.6
130°	1116.6	1176.0	1235.3	1250.2	1433.5	1678.0	1800.1	2015.2	2445.2	2767.6	2815.9
132.5°	1153.6	1213.0	1272.3	1287.2	1455.3	1679.6	1791.7	1984.2	2369.2	2657.9	2701.1
135°	1208.5	1262.5	1316.6	1330.1	1479.2	1678.1	1777.5	1938.7	2260.9	2502.7	2540.0
137.5°	1264.5	1318.0	1371.6	1385.0	1515.0	1688.4	1775.1	1911.3	2183.9	2388.3	2418.8
140°	1311.1	1360.4	1409.6	1422.0	1536.9	1690.1	1766.7	1884.4	2119.8	2296.4	2324.9
142.5°	1346.8	1392.4	1438.0	1449.4	1555.1	1696.1	1766.7	1870.1	2076.9	2232.0	2256.4
145°	1401.7	1441.5	1481.2	1491.2	1579.0	1696.2	1754.8	1839.3	2008.5	2135.3	2153.9
147.5°	1456.6	1495.3	1534.0	1543.7	1614.0	1707.9	1754.8	1821.4	1954.4	2054.3	2069.6
150°	1492.3	1527.3	1562.3	1571.1	1632.4	1714.0	1754.8	1811.0	1923.4	2007.7	2020.1
152.5°	1529.3	1555.8	1582.4	1589.0	1644.2	1717.9	1754.8	1802.8	1898.7	1970.7	1980.1
155°	1584.2	1603.8	1623.5	1628.4	1670.5	1726.7	1754.8	1793.0	1869.3	1926.5	1932.7
157.5°	1624.7	1643.8	1663.0	1667.7	1696.8	1735.5	1754.8	1784.5	1843.8	1888.4	1892.8
160°	1652.2	1667.1	1681.9	1685.6	1708.7	1739.4	1754.8	1780.3	1831.1	1869.3	1871.8
162.5°	1679.6	1690.7	1701.9	1704.6	1721.4	1743.6	1754.8	1776.2	1819.2	1851.4	1853.8
165°	1709.4	1719.5	1729.6	1732.1	1739.6	1749.8	1754.8	1770.2	1800.9	1824.0	1826.4
167.5°	1736.9	1741.6	1746.4	1747.7	1754.0	1762.5	1766.7	1776.8	1797.0	1812.1	1813.1
170°	1754.8	1759.6	1764.4	1765.5	1765.9	1766.4	1766.7	1776.8	1797.0	1812.1	1812.1
172.5°	1764.3	1765.3	1766.4	1766.7	1766.7	1766.7	1766.7	1774.6	1790.6	1802.5	1801.6
175°	1777.5	1777.5	1777.5	1777.5	1773.9	1769.1	1766.7	1771.8	1781.8	1789.3	1789.3
177.5°	1777.5	1777.5	1777.5	1777.5	1774.7	1771.0	1769.1	1773.1	1781.0	1787.0	1785.9
180°	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1509.4	1509.4
2.5°	1611.3	1601.6
5°	2072.4	2082.1
7.5°	2790.7	2785.8
10°	3470.1	3513.8
12.5°	3965.2	3974.9
15°	4266.1	4285.5
17.5°	4382.6	4387.4
20°	4387.4	4377.7
22.5°	4334.0	4324.3
25°	4270.9	4266.1
27.5°	4212.7	4217.6
30°	4188.4	4203.0
32.5°	4188.4	4212.7
35°	4198.1	4222.4
37.5°	4193.3	4222.4
40°	4173.9	4207.8
42.5°	4120.5	4144.7
45°	4038.0	4067.1
47.5°	3931.2	3950.6
50°	3795.3	3814.7
52.5°	3625.4	3630.3
55°	3421.6	3441.0
57.5°	3203.2	3208.0
60°	2960.5	2975.1
62.5°	2703.3	2703.3
65°	2431.5	2441.2
67.5°	2150.0	2174.3
70°	1863.7	1868.5
72.5°	1582.2	1582.2
75°	1291.0	1295.9
77.5°	1014.3	1014.3
80°	752.3	757.2
82.5°	519.3	529.1
85°	325.1	325.1
87.5°	150.5	135.8
90°	45.3	45.3
92.5°	181.5	145.5
95°	632.9	523.7
97.5°	1516.5	1308.7
100°	2184.9	1937.3
102.5°	2842.5	2630.4
105°	3680.8	3566.8
107.5°	4230.0	4257.5
110°	4439.4	4558.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4458.1	4640.5
115°	4339.9	4592.7
117.5°	4089.2	4369.7
120°	3887.2	4159.7
122.5°	3690.4	3959.3
125°	3409.9	3657.5
127.5°	3157.6	3366.5
130°	3008.8	3201.8
132.5°	2873.9	3046.8
135°	2688.9	2838.0
137.5°	2540.7	2662.7
140°	2438.9	2552.9
142.5°	2354.5	2452.6
145°	2228.1	2302.3
147.5°	2131.1	2192.6
150°	2070.0	2119.8
152.5°	2017.7	2055.4
155°	1957.7	1982.6
157.5°	1910.3	1927.8
160°	1881.9	1892.0
162.5°	1863.3	1872.9
165°	1836.6	1846.6
167.5°	1817.4	1821.6
170°	1812.1	1812.1
172.5°	1797.9	1794.1
175°	1789.3	1789.3
177.5°	1781.7	1777.5
180°	1777.5	1777.5



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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	6.40	7.30	7.34	8.27	9.53	19.59	20.49	20.53	21.46	22.72
	3H	7.10	7.92	8.06	8.89	10.18	21.44	22.25	22.39	23.22	24.51
	4H	7.40	8.17	8.38	9.15	10.45	22.09	22.86	23.06	23.84	25.13
	6H	7.66	8.37	8.64	9.35	10.66	22.52	23.23	23.51	24.22	25.53
	8H	7.73	8.40	8.71	9.41	10.71	22.65	23.32	23.64	24.33	25.63
	12H	7.75	8.39	8.74	9.39	10.72	22.72	23.36	23.71	24.36	25.69
4H	2H	13.62	14.39	14.60	15.37	16.67	19.87	20.64	20.84	21.62	22.91
	3H	15.20	15.84	16.18	16.85	18.16	21.92	22.57	22.91	23.58	24.88
	4H	15.29	15.88	16.29	16.88	18.22	22.69	23.28	23.69	24.29	25.62
	6H	15.30	15.81	16.31	16.84	18.17	23.24	23.75	24.25	24.78	26.10
	8H	15.28	15.76	16.29	16.78	18.12	23.41	23.88	24.42	24.90	26.25
	12H	15.24	15.67	16.27	16.71	18.06	23.50	23.93	24.53	24.97	26.32
8H	4H	16.74	17.22	17.75	18.24	19.58	22.76	23.23	23.77	24.25	25.60
	6H	16.99	17.38	18.02	18.44	19.79	23.39	23.79	24.43	24.85	26.19
	8H	17.01	17.35	18.05	18.40	19.76	23.62	23.96	24.66	25.01	26.37
	12H	16.98	17.28	18.02	18.33	19.73	23.77	24.07	24.81	25.11	26.52
12H	4H	16.89	17.32	17.92	18.36	19.71	22.71	23.14	23.74	24.18	25.53
	6H	17.25	17.60	18.29	18.64	20.00	23.38	23.73	24.42	24.77	26.13
	8H	17.32	17.63	18.37	18.67	20.07	23.61	23.92	24.66	24.96	26.36