

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: P937727

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937727
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-92765-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

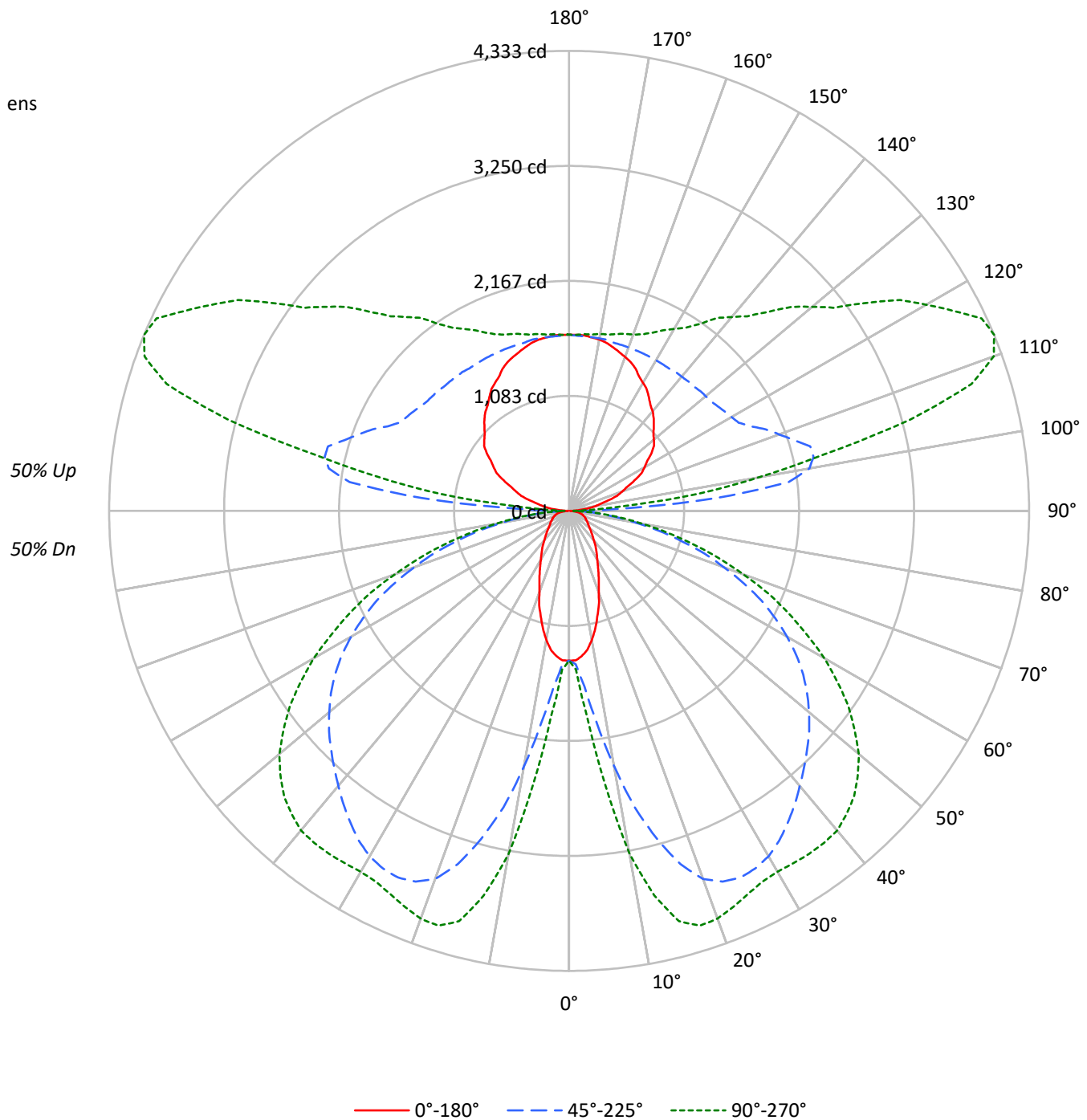
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21667.5 lumens
Efficiency: N/A
Efficacy: 105.0 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

TEST NUMBER: P937727
CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4359	4359	4359
5°	4260	5040	5859
10°	3866	7348	9714
15°	3287	9602	11729
20°	2677	11130	11954
25°	2234	11650	11711
30°	1885	11727	11689
35°	1667	11535	11991
40°	1454	11285	12304
45°	1317	11103	12352
50°	1209	10940	12147
55°	1159	10700	11609
60°	1189	10234	10758
65°	1238	9525	9591
70°	1322	8312	8102
75°	1470	6784	6323
80°	1619	4710	4261
85°	1468	2504	2180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.3	0.8
10°-20°	808.0	3.7
20°-30°	1413.3	6.5
30°-40°	1819.3	8.4
40°-50°	2032.1	9.4
50°-60°	1946.3	9.0
60°-70°	1542.4	7.1
70°-80°	907.0	4.2
80°-90°	258.3	1.2
90°-100°	809.0	3.7
100°-110°	2126.9	9.8
110°-120°	2205.3	10.2
120°-130°	1768.9	8.2
130°-140°	1388.0	6.4
140°-150°	1065.3	4.9
150°-160°	767.2	3.5
160°-170°	469.4	2.2
170°-180°	158.6	0.7
0°-30°	2403.5	11.1
0°-40°	4222.8	19.5
0°-60°	8201.1	37.8
0°-90°	10908.8	50.3
90°-120°	5141.2	23.7
90°-150°	9363.4	43.2
90°-180°	10759.0	49.7
0°-180°	21667.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1373	1473	1659	1876	1944	127
15°	1029	1899	3199	3879	4001	286
25°	657	2152	3811	3979	3983	303
35°	444	2057	3589	3793	3942	277
45°	304	1640	3172	3634	3798	235
55°	218	1042	2692	3127	3213	198
65°	172	553	1998	2248	2279	171
75°	127	340	1097	1205	1210	133
85°	45	104	272	299	304	48
90°	11	31	85	42	42	12
95°	107	419	1393	718	489	119
105°	383	580	2351	3570	3330	406
115°	680	826	1884	3757	4288	672
125°	947	1062	1713	2895	3415	841
135°	1128	1242	1660	2337	2650	873
145°	1309	1392	1638	1994	2150	820
155°	1479	1520	1638	1799	1851	680
165°	1596	1617	1638	1703	1724	450
175°	1660	1660	1650	1671	1671	158
180°	1660	1660	1660	1660	1660	



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CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4
2.5°	1409.4	1409.4	1418.4	1422.9	1431.9	1436.5	1445.6	1454.6	1481.8	1486.4	1495.4
5°	1373.0	1391.1	1450.1	1472.7	1536.2	1622.3	1658.6	1717.5	1839.8	1876.1	1898.7
7.5°	1318.7	1359.5	1504.5	1540.8	1699.4	1925.9	2021.1	2148.0	2342.9	2438.0	2515.0
10°	1232.6	1318.7	1577.0	1663.0	1921.4	2265.7	2442.5	2619.2	2913.8	3045.2	3095.1
12.5°	1137.5	1277.9	1654.0	1771.9	2143.4	2646.4	2859.4	3054.3	3389.6	3566.4	3593.5
15°	1028.7	1219.0	1726.5	1898.7	2379.1	2963.7	3199.2	3439.4	3752.1	3879.1	3910.7
17.5°	933.5	1173.7	1794.5	1975.7	2560.3	3249.1	3489.3	3688.7	3942.4	4028.6	4051.2
20°	815.7	1101.1	1839.8	2075.4	2750.7	3457.6	3688.7	3842.7	4015.0	4069.4	4078.4
22.5°	729.5	1024.1	1867.0	2111.7	2877.5	3584.5	3779.4	3901.6	4019.5	4037.6	4042.1
25°	657.1	938.1	1862.5	2152.5	2986.3	3661.5	3811.0	3901.6	3969.7	3978.7	3978.7
27.5°	589.1	842.9	1844.3	2161.6	3067.8	3679.6	3797.5	3860.8	3892.6	3910.7	3910.7
30°	530.2	752.2	1799.0	2143.4	3104.1	3661.5	3756.7	3788.4	3820.1	3847.3	3860.8
32.5°	484.9	666.2	1731.1	2107.2	3108.6	3616.2	3684.2	3702.3	3747.6	3811.0	3833.7
35°	444.1	580.0	1654.0	2057.3	3081.5	3543.7	3589.0	3607.2	3697.8	3792.9	3824.6
37.5°	403.3	516.6	1554.3	1971.3	3040.7	3457.6	3489.3	3521.0	3661.5	3774.8	3811.0
40°	362.5	462.2	1436.5	1876.1	2977.2	3353.4	3380.5	3430.4	3616.2	3747.6	3783.8
42.5°	330.8	416.9	1309.7	1776.4	2895.7	3235.6	3276.4	3348.8	3561.8	3702.3	3743.1
45°	303.6	371.6	1173.7	1640.5	2791.4	3113.2	3172.1	3271.8	3498.4	3634.3	3670.5
47.5°	276.4	339.9	1033.2	1500.0	2678.1	2990.8	3067.8	3181.1	3412.3	3543.7	3575.4
50°	253.8	308.1	892.7	1350.4	2555.8	2859.4	2950.0	3067.8	3303.5	3425.9	3466.7
52.5°	235.7	281.0	761.3	1200.8	2415.3	2723.5	2827.7	2950.0	3172.1	3289.9	3317.1
55°	217.5	258.3	648.0	1042.2	2270.3	2578.4	2691.8	2809.6	3027.1	3126.8	3144.9
57.5°	208.4	240.2	552.9	892.7	2116.2	2415.3	2542.2	2651.0	2854.9	2931.9	2950.0
60°	194.9	226.5	480.3	765.9	1948.6	2261.3	2370.0	2478.8	2651.0	2714.4	2728.0
62.5°	181.3	217.5	426.0	643.5	1776.4	2080.0	2188.7	2288.4	2433.5	2478.8	2496.9
65°	172.2	208.4	385.2	552.9	1599.7	1889.7	1998.4	2084.5	2202.4	2247.6	2256.7
67.5°	163.2	199.4	353.5	475.9	1422.9	1699.4	1780.9	1862.5	1953.1	1998.4	2003.0
70°	149.5	190.3	326.3	421.4	1241.6	1481.8	1549.8	1635.9	1708.4	1731.1	1744.6
72.5°	140.5	176.7	308.1	380.6	1055.9	1273.4	1336.8	1386.7	1450.1	1472.7	1472.7
75°	126.8	158.6	290.0	339.9	865.5	1042.2	1096.7	1146.5	1196.3	1205.4	1191.8
77.5°	113.3	140.5	249.2	285.5	675.2	824.8	870.0	897.3	938.1	947.1	951.6
80°	95.2	122.4	194.9	222.1	489.4	607.2	638.9	661.6	697.9	697.9	707.0
82.5°	72.5	95.2	140.5	158.6	330.8	416.9	444.1	457.6	480.3	480.3	480.3
85°	45.3	58.9	90.6	104.3	199.4	253.8	271.9	276.4	294.6	299.1	299.1
87.5°	22.7	31.7	58.9	63.5	104.3	131.4	131.4	140.5	140.5	135.9	131.4
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.7	417.8	300.0	211.6	203.2
95°	106.9	245.6	384.2	418.8	743.6	1176.8	1393.4	1243.4	943.4	718.4	692.9
97.5°	184.9	307.2	429.4	460.1	1001.7	1723.9	2085.1	1990.3	1800.7	1658.5	1610.0
100°	245.0	355.9	466.8	494.5	1095.6	1897.1	2297.9	2304.8	2318.7	2329.0	2271.3
102.5°	296.3	399.7	503.2	529.1	1138.7	1951.6	2358.0	2478.8	2720.3	2901.6	2852.0
105°	383.2	470.8	558.4	580.3	1170.7	1957.8	2351.3	2622.2	3163.7	3569.9	3543.3
107.5°	472.3	554.0	635.6	656.1	1176.6	1870.6	2217.6	2595.4	3350.8	3917.4	3923.8
110°	532.4	606.2	679.9	698.4	1167.6	1793.4	2106.2	2528.5	3373.0	4006.4	4034.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.5	661.8	732.0	749.6	1168.1	1726.0	2004.9	2437.1	3301.4	3949.7	3992.2
115°	680.5	745.4	810.2	826.5	1178.8	1648.6	1883.5	2299.8	3132.5	3756.9	3816.0
117.5°	768.5	827.5	886.4	901.1	1200.8	1600.2	1800.0	2175.7	2927.2	3490.8	3556.2
120°	819.8	875.2	930.7	944.6	1218.6	1584.0	1766.6	2109.9	2796.5	3311.4	3375.1
122.5°	869.9	925.9	981.8	995.8	1244.2	1575.4	1741.0	2050.1	2668.4	3132.1	3194.9
125°	946.8	997.8	1048.7	1061.5	1278.7	1568.3	1713.1	1975.7	2500.9	2894.9	2952.6
127.5°	1009.1	1060.6	1112.1	1125.0	1313.2	1564.2	1689.7	1915.2	2366.2	2704.4	2753.1
130°	1042.6	1098.0	1153.4	1167.3	1338.5	1566.7	1680.8	1881.6	2283.1	2584.1	2629.2
132.5°	1077.1	1132.6	1188.0	1201.8	1358.8	1568.2	1672.9	1852.6	2212.1	2481.7	2522.0
135°	1128.4	1178.8	1229.3	1241.9	1381.2	1566.8	1659.6	1810.1	2111.0	2336.8	2371.6
137.5°	1180.7	1230.7	1280.6	1293.1	1414.5	1576.5	1657.4	1784.6	2039.1	2229.9	2258.4
140°	1224.1	1270.2	1316.2	1327.7	1435.0	1578.1	1649.6	1759.4	1979.3	2144.2	2170.8
142.5°	1257.5	1300.1	1342.7	1353.3	1452.0	1583.7	1649.6	1746.1	1939.2	2084.0	2106.9
145°	1308.8	1345.9	1383.0	1392.3	1474.3	1583.8	1638.5	1717.4	1875.3	1993.8	2011.1
147.5°	1360.0	1396.1	1432.3	1441.3	1507.0	1594.7	1638.5	1700.6	1824.9	1918.1	1932.4
150°	1393.4	1426.0	1458.7	1466.9	1524.1	1600.4	1638.5	1691.0	1795.9	1874.6	1886.2
152.5°	1427.9	1452.6	1477.5	1483.6	1535.2	1604.0	1638.5	1683.3	1772.8	1840.0	1848.8
155°	1479.2	1497.5	1515.8	1520.4	1559.8	1612.3	1638.5	1674.1	1745.3	1798.8	1804.6
157.5°	1517.0	1534.9	1552.7	1557.2	1584.3	1620.5	1638.5	1666.2	1721.6	1763.2	1767.3
160°	1542.6	1556.6	1570.4	1573.9	1595.4	1624.1	1638.5	1662.2	1709.7	1745.3	1747.7
162.5°	1568.2	1578.6	1589.0	1591.6	1607.3	1628.0	1638.5	1658.5	1698.6	1728.6	1730.9
165°	1596.1	1605.5	1614.9	1617.2	1624.3	1633.8	1638.5	1652.9	1681.5	1703.0	1705.4
167.5°	1621.7	1626.2	1630.6	1631.8	1637.7	1645.6	1649.6	1659.0	1677.9	1692.0	1692.9
170°	1638.5	1643.0	1647.4	1648.5	1648.8	1649.3	1649.6	1659.0	1677.9	1692.0	1692.0
172.5°	1647.3	1648.3	1649.3	1649.6	1649.6	1649.6	1649.6	1657.0	1671.9	1683.0	1682.1
175°	1659.6	1659.6	1659.6	1659.6	1656.3	1651.8	1649.6	1654.3	1663.7	1670.7	1670.7
177.5°	1659.6	1659.6	1659.6	1659.6	1657.1	1653.6	1651.8	1655.5	1663.0	1668.5	1667.5
180°	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1409.4	1409.4
2.5°	1504.5	1495.4
5°	1935.0	1944.0
7.5°	2605.6	2601.1
10°	3240.0	3280.8
12.5°	3702.3	3711.3
15°	3983.2	4001.3
17.5°	4092.0	4096.5
20°	4096.5	4087.5
22.5°	4046.7	4037.6
25°	3987.8	3983.2
27.5°	3933.4	3938.0
30°	3910.7	3924.3
32.5°	3910.7	3933.4
35°	3919.8	3942.4
37.5°	3915.3	3942.4
40°	3897.2	3928.9
42.5°	3847.3	3870.0
45°	3770.2	3797.5
47.5°	3670.5	3688.7
50°	3543.7	3561.8
52.5°	3385.1	3389.6
55°	3194.8	3212.9
57.5°	2990.8	2995.4
60°	2764.3	2777.8
62.5°	2524.1	2524.1
65°	2270.3	2279.4
67.5°	2007.5	2030.2
70°	1740.2	1744.6
72.5°	1477.3	1477.3
75°	1205.4	1209.9
77.5°	947.1	947.1
80°	702.4	707.0
82.5°	484.9	494.0
85°	303.6	303.6
87.5°	140.5	126.8
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.9	489.0
97.5°	1416.0	1221.9
100°	2040.1	1808.9
102.5°	2654.0	2456.0
105°	3436.8	3330.4
107.5°	3949.6	3975.3
110°	4145.1	4256.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4162.6	4332.9
115°	4052.1	4288.2
117.5°	3818.1	4080.0
120°	3629.5	3884.0
122.5°	3445.8	3696.8
125°	3183.8	3415.0
127.5°	2948.2	3143.3
130°	2809.3	2989.6
132.5°	2683.4	2844.8
135°	2510.7	2649.8
137.5°	2372.2	2486.1
140°	2277.3	2383.7
142.5°	2198.4	2290.0
145°	2080.4	2149.7
147.5°	1989.8	2047.2
150°	1932.8	1979.3
152.5°	1884.0	1919.1
155°	1827.9	1851.2
157.5°	1783.6	1800.0
160°	1757.1	1766.6
162.5°	1739.8	1748.7
165°	1714.8	1724.2
167.5°	1696.9	1700.8
170°	1692.0	1692.0
172.5°	1678.7	1675.2
175°	1670.7	1670.7
177.5°	1663.6	1659.6
180°	1659.6	1659.6



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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	6.16	7.06	7.10	8.03	9.29	19.35	20.25	20.30	21.22	22.48
	3H	6.87	7.68	7.82	8.66	9.94	21.20	22.01	22.15	22.99	24.27
	4H	7.17	7.94	8.14	8.92	10.21	21.85	22.62	22.82	23.60	24.89
	6H	7.42	8.13	8.40	9.11	10.42	22.29	23.00	23.27	23.98	25.29
	8H	7.49	8.16	8.48	9.17	10.47	22.41	23.09	23.40	24.09	25.39
	12H	7.51	8.15	8.50	9.15	10.48	22.48	23.13	23.48	24.12	25.45
4H	2H	13.39	14.16	14.36	15.14	16.43	19.63	20.40	20.60	21.38	22.67
	3H	14.96	15.60	15.94	16.61	17.92	21.68	22.33	22.67	23.34	24.65
	4H	15.05	15.64	16.05	16.65	17.98	22.45	23.05	23.45	24.05	25.38
	6H	15.07	15.58	16.07	16.60	17.93	23.00	23.51	24.01	24.54	25.87
	8H	15.04	15.52	16.05	16.54	17.88	23.17	23.64	24.18	24.66	26.01
	12H	15.00	15.43	16.03	16.47	17.82	23.27	23.70	24.29	24.73	26.08
8H	4H	16.51	16.98	17.51	18.00	19.35	22.52	22.99	23.53	24.02	25.36
	6H	16.75	17.14	17.78	18.21	19.55	23.15	23.55	24.19	24.61	25.95
	8H	16.77	17.12	17.81	18.16	19.52	23.38	23.73	24.42	24.77	26.13
	12H	16.74	17.04	17.78	18.09	19.49	23.53	23.83	24.57	24.88	26.28
12H	4H	16.65	17.08	17.68	18.12	19.47	22.47	22.90	23.50	23.94	25.29
	6H	17.01	17.36	18.05	18.41	19.77	23.14	23.49	24.18	24.53	25.89
	8H	17.08	17.39	18.13	18.43	19.83	23.37	23.68	24.42	24.72	26.13