

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: P937755

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937755
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-93050-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

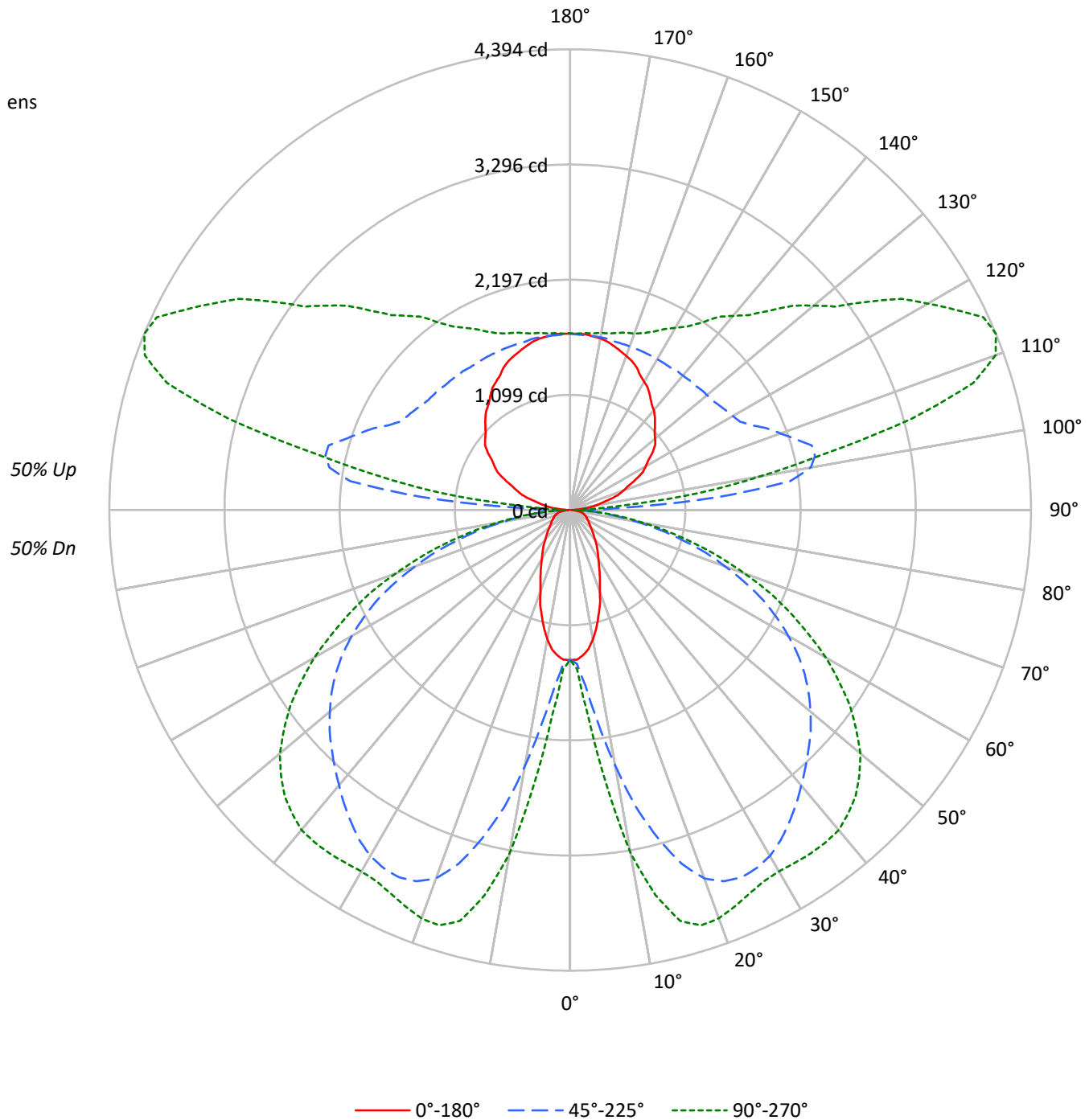
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21971.9 lumens
Efficiency: N/A
Efficacy: 106.5 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				
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°	4421	4421	4421
5°	4320	5110	5942
10°	3920	7451	9850
15°	3333	9737	11894
20°	2714	11286	12122
25°	2265	11814	11876
30°	1911	11891	11853
35°	1690	11697	12160
40°	1474	11443	12477
45°	1335	11259	12525
50°	1226	11094	12318
55°	1176	10850	11772
60°	1205	10378	10910
65°	1255	9659	9725
70°	1340	8429	8216
75°	1491	6879	6411
80°	1641	4776	4320
85°	1491	2539	2211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12525 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.9	0.8
10°-20°	819.3	3.7
20°-30°	1433.1	6.5
30°-40°	1844.8	8.4
40°-50°	2060.6	9.4
50°-60°	1973.6	9.0
60°-70°	1564.1	7.1
70°-80°	919.7	4.2
80°-90°	261.9	1.2
90°-100°	820.3	3.7
100°-110°	2156.7	9.8
110°-120°	2236.3	10.2
120°-130°	1793.8	8.2
130°-140°	1407.5	6.4
140°-150°	1080.3	4.9
150°-160°	778.0	3.5
160°-170°	476.0	2.2
170°-180°	160.8	0.7
0°-30°	2437.3	11.1
0°-40°	4282.1	19.5
0°-60°	8316.3	37.8
0°-90°	11062.1	50.3
90°-120°	5213.4	23.7
90°-150°	9495.0	43.2
90°-180°	10910.0	49.7
0°-180°	21971.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1392	1493	1682	1902	1971	129
15°	1043	1925	3244	3934	4058	290
25°	666	2183	3865	4035	4039	307
35°	450	2086	3639	3846	3998	281
45°	308	1664	3217	3685	3851	238
55°	221	1057	2730	3171	3258	201
65°	175	561	2026	2279	2311	173
75°	129	345	1112	1222	1227	135
85°	46	106	276	303	308	49
90°	11	32	86	43	43	12
95°	108	425	1413	728	496	120
105°	389	588	2384	3620	3377	412
115°	690	838	1910	3810	4348	682
125°	960	1076	1737	2936	3463	852
135°	1144	1259	1683	2370	2687	885
145°	1327	1412	1662	2022	2180	831
155°	1500	1542	1662	1824	1877	689
165°	1618	1640	1662	1727	1748	457
175°	1683	1683	1673	1694	1694	160
180°	1683	1683	1683	1683	1683	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2
2.5°	1429.2	1429.2	1438.3	1442.9	1452.1	1456.7	1465.9	1475.1	1502.7	1507.3	1516.4
5°	1392.3	1410.7	1470.4	1493.4	1557.8	1645.1	1681.9	1741.6	1865.6	1902.5	1925.4
7.5°	1337.2	1378.6	1525.6	1562.4	1723.2	1953.0	2049.5	2178.2	2375.8	2472.3	2550.4
10°	1249.9	1337.2	1599.1	1686.4	1948.4	2297.6	2476.8	2656.0	2954.7	3088.0	3138.6
12.5°	1153.4	1295.8	1677.3	1796.7	2173.6	2683.6	2899.6	3097.2	3437.3	3616.5	3644.0
15°	1043.1	1236.1	1750.8	1925.4	2412.5	3005.3	3244.2	3487.8	3804.8	3933.6	3965.7
17.5°	946.6	1190.2	1819.7	2003.5	2596.3	3294.8	3538.4	3740.5	3997.8	4085.2	4108.2
20°	827.1	1116.6	1865.6	2104.6	2789.3	3506.1	3740.5	3896.7	4071.4	4126.5	4135.7
22.5°	739.8	1038.5	1893.2	2141.3	2918.0	3634.9	3832.5	3956.5	4075.9	4094.3	4098.9
25°	666.3	951.2	1888.6	2182.7	3028.2	3713.0	3864.6	3956.5	4025.4	4034.6	4034.6
27.5°	597.4	854.7	1870.2	2191.9	3110.9	3731.3	3850.8	3915.1	3947.3	3965.7	3965.7
30°	537.7	762.8	1824.3	2173.6	3147.7	3713.0	3809.5	3841.6	3873.8	3901.3	3915.1
32.5°	491.7	675.5	1755.4	2136.8	3152.3	3667.0	3736.0	3754.3	3800.2	3864.6	3887.6
35°	450.3	588.2	1677.3	2086.2	3124.8	3593.5	3639.4	3657.8	3749.7	3846.2	3878.3
37.5°	409.0	523.8	1576.2	1999.0	3083.4	3506.1	3538.4	3570.5	3713.0	3827.8	3864.6
40°	367.6	468.7	1456.7	1902.5	3019.1	3400.5	3428.0	3478.6	3667.0	3800.2	3837.0
42.5°	335.5	422.8	1328.1	1801.4	2936.3	3281.0	3322.4	3395.9	3611.9	3754.3	3795.7
45°	307.8	376.8	1190.2	1663.5	2830.6	3156.9	3216.7	3317.8	3547.5	3685.4	3722.1
47.5°	280.3	344.7	1047.7	1521.0	2715.8	3032.8	3110.9	3225.8	3460.2	3593.5	3625.6
50°	257.3	312.5	905.3	1369.4	2591.7	2899.6	2991.5	3110.9	3349.9	3474.0	3515.4
52.5°	239.0	284.9	772.0	1217.7	2449.3	2761.7	2867.5	2991.5	3216.7	3336.2	3363.7
55°	220.6	262.0	657.1	1056.9	2302.2	2614.6	2729.6	2849.1	3069.6	3170.7	3189.1
57.5°	211.4	243.6	560.7	905.3	2146.0	2449.3	2577.9	2688.2	2895.0	2973.1	2991.5
60°	197.6	229.7	487.1	776.6	1976.0	2293.0	2403.3	2513.6	2688.2	2752.5	2766.4
62.5°	183.8	220.6	431.9	652.5	1801.4	2109.2	2219.5	2320.6	2467.6	2513.6	2532.0
65°	174.6	211.4	390.6	560.7	1622.1	1916.2	2026.5	2113.8	2233.3	2279.2	2288.4
67.5°	165.5	202.2	358.4	482.5	1442.9	1723.2	1805.9	1888.6	1980.6	2026.5	2031.1
70°	151.6	193.0	330.8	427.3	1259.1	1502.7	1571.5	1658.9	1732.4	1755.4	1769.1
72.5°	142.5	179.2	312.5	386.0	1070.7	1291.3	1355.6	1406.2	1470.4	1493.4	1493.4
75°	128.6	160.8	294.1	344.7	877.6	1056.9	1112.1	1162.6	1213.1	1222.3	1208.6
77.5°	114.9	142.5	252.7	289.5	684.7	836.4	882.3	909.9	951.2	960.4	965.0
80°	96.5	124.1	197.6	225.2	496.3	615.8	647.9	670.9	707.7	707.7	716.9
82.5°	73.5	96.5	142.5	160.8	335.5	422.8	450.3	464.1	487.1	487.1	487.1
85°	46.0	59.7	91.9	105.7	202.2	257.3	275.7	280.3	298.7	303.3	303.3
87.5°	23.0	32.1	59.7	64.4	105.7	133.2	133.2	142.5	142.5	137.9	133.2
90°	11.3	20.4	29.3	31.6	49.7	73.8	85.8	76.3	57.2	42.9	42.9
92.5°	45.2	121.9	198.8	218.0	306.5	424.4	483.4	423.7	304.2	214.6	206.1
95°	108.4	249.0	389.6	424.7	754.1	1193.4	1413.0	1260.9	956.7	728.5	702.6
97.5°	187.5	311.5	435.5	466.5	1015.8	1748.1	2114.4	2018.2	1826.0	1681.8	1632.6
100°	248.5	360.9	473.3	501.5	1111.0	1923.7	2330.2	2337.2	2351.2	2361.7	2303.2
102.5°	300.4	405.3	510.2	536.5	1154.7	1979.0	2391.2	2513.6	2758.6	2942.3	2892.1
105°	388.6	477.4	566.3	588.4	1187.1	1985.3	2384.4	2659.0	3208.2	3620.0	3593.0
107.5°	478.9	561.7	644.6	665.3	1193.1	1896.9	2248.8	2631.8	3397.9	3972.4	3978.9
110°	539.9	614.7	689.5	708.2	1184.0	1818.6	2135.8	2564.0	3420.4	4062.7	4090.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	599.8	671.1	742.3	760.2	1184.5	1750.2	2033.1	2471.4	3347.8	4005.2	4048.3
115°	690.1	755.9	821.6	838.1	1195.4	1671.7	1910.0	2332.1	3176.5	3809.7	3869.6
117.5°	779.3	839.1	898.8	913.8	1217.6	1622.7	1825.3	2206.2	2968.3	3539.8	3606.2
120°	831.3	887.5	943.8	957.8	1235.7	1606.2	1791.4	2139.5	2835.8	3358.0	3422.5
122.5°	882.2	938.9	995.6	1009.8	1261.7	1597.5	1765.4	2078.9	2705.9	3176.1	3239.8
125°	960.1	1011.8	1063.5	1076.4	1296.6	1590.4	1737.2	2003.5	2536.1	2935.5	2994.1
127.5°	1023.3	1075.5	1127.7	1140.8	1331.7	1586.2	1713.5	1942.1	2399.4	2742.4	2791.8
130°	1057.2	1113.4	1169.6	1183.7	1357.3	1588.7	1704.4	1908.0	2315.1	2620.4	2666.2
132.5°	1092.3	1148.5	1204.7	1218.7	1377.9	1590.3	1696.5	1878.7	2243.2	2516.5	2557.4
135°	1144.2	1195.4	1246.6	1259.4	1400.6	1588.8	1683.0	1835.6	2140.7	2369.6	2404.9
137.5°	1197.3	1247.9	1298.6	1311.3	1434.4	1598.6	1680.7	1809.7	2067.7	2261.3	2290.1
140°	1241.3	1288.0	1334.7	1346.3	1455.1	1600.2	1672.7	1784.2	2007.1	2174.3	2201.3
142.5°	1275.2	1318.4	1361.5	1372.3	1472.4	1605.9	1672.7	1770.7	1966.5	2113.3	2136.5
145°	1327.1	1364.8	1402.5	1411.9	1495.1	1606.0	1661.5	1741.5	1901.7	2021.8	2039.3
147.5°	1379.1	1415.8	1452.4	1461.6	1528.2	1617.1	1661.5	1724.5	1850.5	1945.0	1959.6
150°	1413.0	1446.1	1479.2	1487.5	1545.6	1622.9	1661.5	1714.7	1821.1	1900.9	1912.7
152.5°	1448.0	1473.1	1498.2	1504.5	1556.8	1626.6	1661.5	1707.0	1797.7	1865.9	1874.8
155°	1499.9	1518.5	1537.1	1541.8	1581.7	1634.9	1661.5	1697.6	1769.9	1824.1	1830.0
157.5°	1538.3	1556.4	1574.5	1579.1	1606.6	1643.2	1661.5	1689.6	1745.8	1788.0	1792.1
160°	1564.3	1578.4	1592.4	1596.0	1617.8	1646.9	1661.5	1685.6	1733.7	1769.9	1772.2
162.5°	1590.3	1600.8	1611.4	1614.0	1629.8	1650.9	1661.5	1681.8	1722.4	1752.9	1755.2
165°	1618.5	1628.0	1637.6	1640.0	1647.1	1656.7	1661.5	1676.1	1705.1	1727.0	1729.3
167.5°	1644.5	1649.0	1653.5	1654.7	1660.7	1668.8	1672.7	1682.3	1701.4	1715.7	1716.7
170°	1661.5	1666.0	1670.6	1671.7	1672.0	1672.5	1672.7	1682.3	1701.4	1715.7	1715.7
172.5°	1670.5	1671.5	1672.5	1672.7	1672.7	1672.7	1672.7	1680.3	1695.4	1706.7	1705.8
175°	1683.0	1683.0	1683.0	1683.0	1679.5	1675.0	1672.7	1677.5	1687.0	1694.2	1694.2
177.5°	1683.0	1683.0	1683.0	1683.0	1680.3	1676.8	1675.0	1678.8	1686.3	1691.9	1690.9
180°	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1429.2	1429.2
2.5°	1525.6	1516.4
5°	1962.2	1971.4
7.5°	2642.3	2637.6
10°	3285.6	3326.9
12.5°	3754.3	3763.5
15°	4039.2	4057.6
17.5°	4149.5	4154.1
20°	4154.1	4144.9
22.5°	4103.5	4094.3
25°	4043.8	4039.2
27.5°	3988.7	3993.3
30°	3965.7	3979.4
32.5°	3965.7	3988.7
35°	3974.8	3997.8
37.5°	3970.3	3997.8
40°	3951.9	3984.1
42.5°	3901.3	3924.3
45°	3823.2	3850.8
47.5°	3722.1	3740.5
50°	3593.5	3611.9
52.5°	3432.6	3437.3
55°	3239.7	3258.0
57.5°	3032.8	3037.4
60°	2803.1	2816.9
62.5°	2559.5	2559.5
65°	2302.2	2311.4
67.5°	2035.7	2058.7
70°	1764.6	1769.1
72.5°	1498.0	1498.0
75°	1222.3	1226.9
77.5°	960.4	960.4
80°	712.3	716.9
82.5°	491.7	500.9
85°	307.8	307.8
87.5°	142.5	128.6
90°	42.9	42.9
92.5°	171.9	137.8
95°	599.2	495.8
97.5°	1435.9	1239.1
100°	2068.7	1834.3
102.5°	2691.3	2490.6
105°	3485.1	3377.2
107.5°	4005.1	4031.1
110°	4203.3	4315.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4221.0	4393.7
115°	4109.1	4348.5
117.5°	3871.7	4137.3
120°	3680.5	3938.5
122.5°	3494.2	3748.7
125°	3228.5	3463.0
127.5°	2989.7	3187.4
130°	2848.8	3031.6
132.5°	2721.1	2884.7
135°	2545.9	2687.1
137.5°	2405.6	2521.1
140°	2309.2	2417.1
142.5°	2229.3	2322.2
145°	2109.7	2179.9
147.5°	2017.8	2076.0
150°	1959.9	2007.1
152.5°	1910.4	1946.1
155°	1853.6	1877.2
157.5°	1808.7	1825.3
160°	1781.8	1791.4
162.5°	1764.2	1773.3
165°	1738.9	1748.4
167.5°	1720.7	1724.7
170°	1715.7	1715.7
172.5°	1702.2	1698.7
175°	1694.2	1694.2
177.5°	1686.9	1683.0
180°	1683.0	1683.0



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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	6.21	7.11	7.15	8.08	9.34	19.40	20.30	20.34	21.27	22.53
	3H	6.92	7.73	7.87	8.70	9.99	21.25	22.06	22.20	23.03	24.32
	4H	7.21	7.98	8.19	8.97	10.26	21.90	22.67	22.87	23.65	24.94
	6H	7.47	8.18	8.45	9.16	10.47	22.33	23.04	23.32	24.03	25.34
	8H	7.54	8.21	8.53	9.22	10.52	22.46	23.13	23.45	24.14	25.44
	12H	7.56	8.20	8.55	9.20	10.53	22.53	23.17	23.53	24.17	25.50
4H	2H	13.43	14.20	14.41	15.19	16.48	19.68	20.45	20.65	21.43	22.72
	3H	15.01	15.65	15.99	16.66	17.97	21.73	22.38	22.72	23.39	24.69
	4H	15.10	15.69	16.10	16.70	18.03	22.50	23.09	23.50	24.10	25.43
	6H	15.11	15.62	16.12	16.65	17.98	23.05	23.56	24.06	24.59	25.91
	8H	15.09	15.57	16.10	16.59	17.93	23.22	23.69	24.23	24.71	26.06
	12H	15.05	15.48	16.08	16.52	17.87	23.31	23.74	24.34	24.78	26.13
8H	4H	16.55	17.03	17.56	18.05	19.39	22.57	23.04	23.58	24.06	25.41
	6H	16.80	17.19	17.83	18.25	19.60	23.20	23.60	24.24	24.66	26.00
	8H	16.82	17.16	17.86	18.21	19.57	23.43	23.77	24.47	24.82	26.18
	12H	16.79	17.09	17.83	18.14	19.54	23.58	23.88	24.62	24.93	26.33
12H	4H	16.70	17.13	17.73	18.17	19.52	22.52	22.95	23.55	23.99	25.34
	6H	17.06	17.41	18.10	18.45	19.82	23.19	23.54	24.23	24.58	25.94
	8H	17.13	17.44	18.18	18.48	19.88	23.42	23.73	24.47	24.77	26.17