

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: P938056

Luminaire Tested: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938056
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

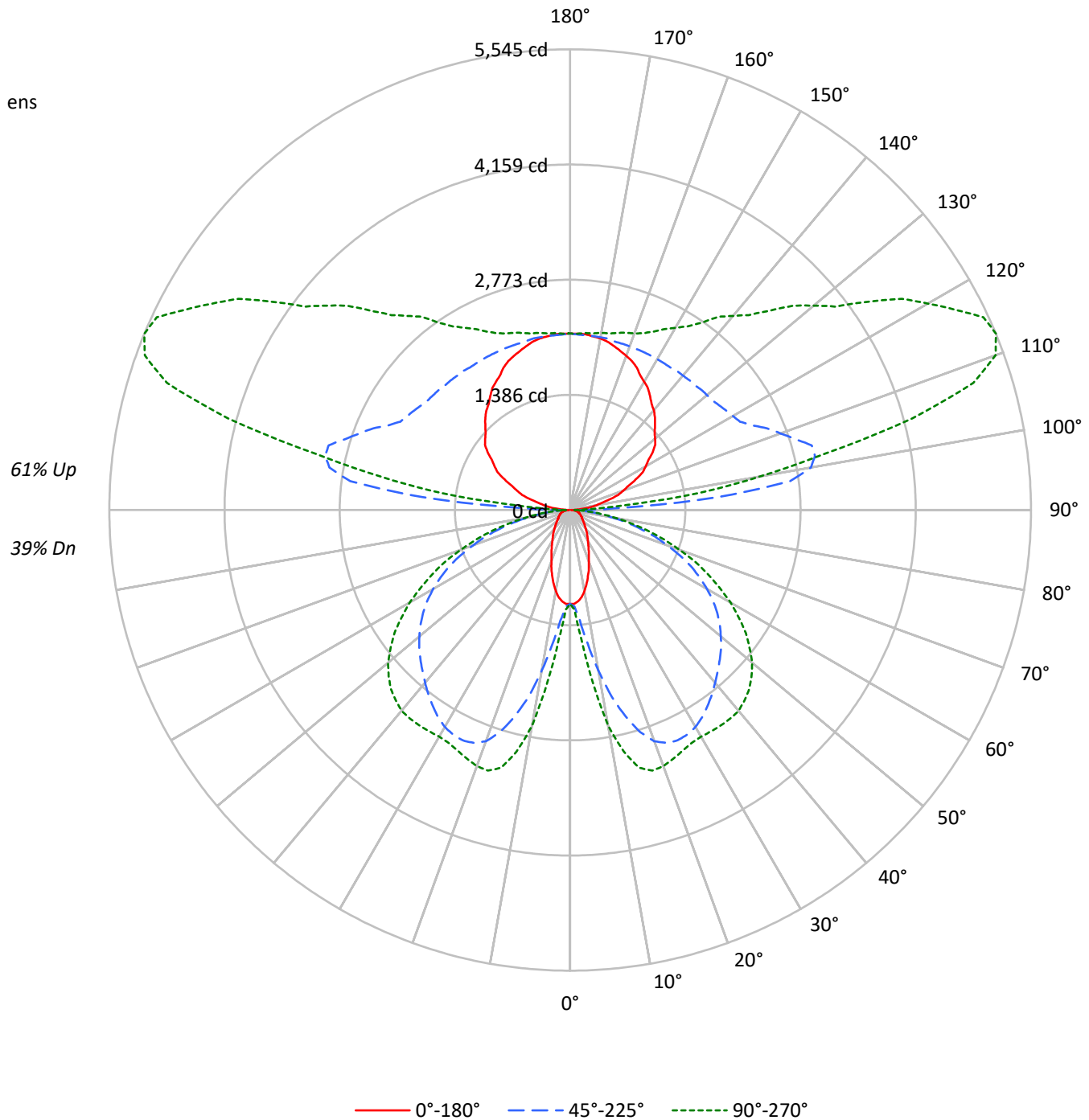
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22527.6 lumens
Efficiency: N/A
Efficacy: 116.6 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: Semi-Indirect

Input Watts (W): 193.2
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: P938056
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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	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3499	3499	3499
5°	3420	4045	4703
10°	3103	5898	7797
15°	2638	7707	9415
20°	2148	8934	9595
25°	1793	9351	9400
30°	1512	9413	9383
35°	1338	9259	9625
40°	1167	9058	9876
45°	1057	8912	9914
50°	971	8781	9750
55°	930	8588	9318
60°	954	8215	8636
65°	994	7645	7698
70°	1061	6672	6503
75°	1181	5445	5075
80°	1299	3781	3419
85°	1176	2009	1750

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9914 cd/sqm



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CATALOG NUMBER: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.3	0.6
10°-20°	648.5	2.9
20°-30°	1134.4	5.0
30°-40°	1460.3	6.5
40°-50°	1631.1	7.2
50°-60°	1562.2	6.9
60°-70°	1238.1	5.5
70°-80°	728.0	3.2
80°-90°	210.3	0.9
90°-100°	1035.3	4.6
100°-110°	2721.8	12.1
110°-120°	2822.2	12.5
120°-130°	2263.8	10.0
130°-140°	1776.3	7.9
140°-150°	1363.4	6.1
150°-160°	981.9	4.4
160°-170°	600.7	2.7
170°-180°	203.0	0.9
0°-30°	1929.2	8.6
0°-40°	3389.5	15.0
0°-60°	6582.8	29.2
0°-90°	8759.2	38.9
90°-120°	6579.4	29.2
90°-150°	11982.8	53.2
90°-180°	13768.0	61.1
0°-180°	22527.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1102	1182	1331	1506	1560	102
15°	826	1524	2568	3114	3212	230
25°	527	1728	3059	3194	3197	243
35°	356	1651	2881	3044	3164	223
45°	244	1317	2546	2917	3048	189
55°	175	837	2161	2510	2579	159
65°	138	444	1604	1804	1830	137
75°	102	273	880	968	971	107
85°	36	84	218	240	244	39
90°	14	40	108	54	54	14
95°	137	536	1783	919	626	152
105°	490	743	3009	4568	4262	520
115°	871	1058	2410	4808	5488	860
125°	1212	1358	2192	3705	4370	1076
135°	1444	1589	2124	2991	3391	1117
145°	1675	1782	2097	2552	2751	1049
155°	1893	1946	2097	2302	2369	870
165°	2043	2070	2097	2179	2207	576
175°	2124	2124	2111	2138	2138	202
180°	2124	2124	2124	2124	2124	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2
2.5°	1131.2	1131.2	1138.5	1142.2	1149.4	1153.1	1160.3	1167.6	1189.4	1193.1	1200.3
5°	1102.2	1116.7	1164.0	1182.2	1233.1	1302.2	1331.3	1378.6	1476.8	1505.8	1524.0
7.5°	1058.5	1091.2	1207.6	1236.7	1364.0	1545.9	1622.3	1724.1	1880.5	1956.9	2018.7
10°	989.4	1058.5	1265.8	1334.9	1542.3	1818.7	1960.6	2102.4	2338.8	2444.3	2484.3
12.5°	913.0	1025.7	1327.6	1422.2	1720.5	2124.2	2295.2	2451.6	2720.8	2862.7	2884.4
15°	825.7	978.4	1385.8	1524.0	1909.6	2378.8	2568.0	2760.8	3011.8	3113.6	3139.1
17.5°	749.3	942.1	1440.4	1585.9	2055.1	2608.0	2800.8	2960.9	3164.5	3233.6	3251.9
20°	654.7	883.9	1476.8	1665.9	2207.9	2775.3	2960.9	3084.5	3222.7	3266.4	3273.6
22.5°	585.6	822.1	1498.6	1695.0	2309.7	2877.2	3033.5	3131.8	3226.3	3240.9	3244.5
25°	527.4	753.0	1494.9	1727.7	2397.0	2939.0	3059.0	3131.8	3186.3	3193.6	3193.6
27.5°	472.9	676.5	1480.4	1735.0	2462.5	2953.5	3048.1	3099.1	3124.5	3139.1	3139.1
30°	425.5	603.8	1444.0	1720.5	2491.6	2939.0	3015.4	3040.9	3066.3	3088.1	3099.1
32.5°	389.2	534.6	1389.5	1691.4	2495.2	2902.7	2957.2	2971.8	3008.1	3059.0	3077.2
35°	356.4	465.5	1327.6	1651.4	2473.4	2844.4	2880.8	2895.3	2968.1	3044.5	3070.0
37.5°	323.8	414.7	1247.6	1582.3	2440.7	2775.3	2800.8	2826.2	2939.0	3030.0	3059.0
40°	291.0	371.0	1153.1	1505.8	2389.8	2691.7	2713.4	2753.5	2902.7	3008.1	3037.2
42.5°	265.5	334.7	1051.2	1425.8	2324.2	2597.1	2629.8	2688.0	2859.0	2971.8	3004.4
45°	243.7	298.3	942.1	1316.7	2240.6	2498.9	2546.1	2626.2	2808.1	2917.2	2946.3
47.5°	221.9	272.8	829.3	1204.0	2149.7	2400.7	2462.5	2553.4	2739.0	2844.4	2869.9
50°	203.7	247.3	716.5	1084.0	2051.5	2295.2	2367.9	2462.5	2651.7	2749.9	2782.6
52.5°	189.1	225.5	611.1	963.9	1938.7	2186.0	2269.7	2367.9	2546.1	2640.8	2662.6
55°	174.6	207.3	520.1	836.6	1822.4	2069.7	2160.6	2255.1	2429.8	2509.8	2524.3
57.5°	167.3	192.8	443.8	716.5	1698.7	1938.7	2040.6	2127.9	2291.6	2353.3	2367.9
60°	156.4	181.9	385.5	614.7	1564.0	1815.0	1902.4	1989.7	2127.9	2178.8	2189.7
62.5°	145.5	174.6	341.9	516.5	1425.8	1669.6	1756.8	1836.9	1953.3	1989.7	2004.2
65°	138.2	167.3	309.2	443.8	1284.0	1516.8	1604.0	1673.2	1767.8	1804.1	1811.4
67.5°	131.0	160.0	283.8	381.9	1142.2	1364.0	1429.5	1494.9	1567.7	1604.0	1607.7
70°	120.0	152.8	261.9	338.3	996.6	1189.4	1244.0	1313.1	1371.3	1389.5	1400.4
72.5°	112.8	141.9	247.3	305.5	847.5	1022.1	1073.1	1113.1	1164.0	1182.2	1182.2
75°	101.9	127.3	232.8	272.8	694.7	836.6	880.3	920.3	960.3	967.5	956.6
77.5°	90.9	112.8	200.1	229.1	542.0	662.0	698.4	720.2	753.0	760.2	763.9
80°	76.4	98.2	156.4	178.2	392.9	487.4	512.9	531.1	560.2	560.2	567.4
82.5°	58.2	76.4	112.8	127.3	265.5	334.7	356.4	367.4	385.5	385.5	385.5
85°	36.3	47.3	72.8	83.7	160.0	203.7	218.2	221.9	236.4	240.1	240.1
87.5°	18.2	25.4	47.3	50.9	83.7	105.4	105.4	112.8	112.8	109.1	105.4
90°	14.2	25.6	37.1	39.9	62.7	93.1	108.3	96.3	72.2	54.1	54.1
92.5°	57.0	153.9	250.9	275.1	386.8	535.7	610.1	534.6	383.9	270.8	260.1
95°	136.8	314.2	491.6	535.9	951.6	1506.0	1783.2	1591.2	1207.3	919.4	886.8
97.5°	236.6	393.0	549.6	588.7	1281.9	2206.2	2668.4	2547.1	2304.4	2122.4	2060.3
100°	313.6	455.5	597.4	632.9	1402.1	2427.9	2940.7	2949.6	2967.3	2980.6	2906.6
102.5°	379.2	511.6	643.9	677.1	1457.3	2497.5	3017.7	3172.2	3481.4	3713.3	3649.9
105°	490.3	602.5	714.6	742.7	1498.1	2505.4	3009.0	3355.6	4048.7	4568.5	4534.4
107.5°	604.4	708.9	813.4	839.6	1505.8	2394.0	2838.1	3321.4	4288.1	5013.2	5021.4
110°	681.4	775.7	870.2	893.7	1494.3	2295.1	2695.5	3235.9	4316.7	5127.3	5162.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	756.9	846.8	936.8	959.3	1494.7	2208.8	2565.8	3118.9	4225.0	5054.6	5109.1
115°	870.9	953.9	1036.9	1057.6	1508.6	2109.8	2410.4	2943.2	4008.8	4808.0	4883.5
117.5°	983.6	1058.9	1134.4	1153.2	1536.6	2047.8	2303.5	2784.4	3746.0	4467.2	4551.0
120°	1049.1	1120.0	1191.1	1208.8	1559.4	2027.0	2260.7	2700.1	3578.8	4237.8	4319.2
122.5°	1113.3	1184.8	1256.4	1274.3	1592.2	2016.1	2228.0	2623.6	3414.8	4008.3	4088.6
125°	1211.6	1276.9	1342.1	1358.5	1636.4	2007.0	2192.3	2528.3	3200.6	3704.6	3778.6
127.5°	1291.5	1357.4	1423.3	1439.7	1680.6	2001.8	2162.4	2450.9	3028.0	3460.9	3523.3
130°	1334.2	1405.2	1476.1	1493.8	1712.9	2005.0	2151.0	2407.8	2921.7	3307.0	3364.6
132.5°	1378.4	1449.3	1520.3	1538.1	1739.0	2007.0	2141.0	2371.0	2830.9	3175.9	3227.5
135°	1444.0	1508.6	1573.2	1589.4	1767.6	2005.2	2123.9	2316.5	2701.7	2990.6	3035.1
137.5°	1511.0	1574.9	1638.9	1654.9	1810.2	2017.5	2121.1	2283.9	2609.5	2853.7	2890.1
140°	1566.5	1625.4	1684.3	1699.1	1836.4	2019.5	2111.1	2251.7	2532.9	2743.9	2778.0
142.5°	1609.3	1663.8	1718.3	1731.9	1858.2	2026.8	2111.1	2234.6	2481.7	2667.0	2696.3
145°	1674.9	1722.4	1770.0	1781.8	1886.8	2026.8	2096.8	2197.9	2400.0	2551.5	2573.7
147.5°	1740.4	1786.7	1832.9	1844.5	1928.6	2040.8	2096.8	2176.3	2335.4	2454.6	2472.9
150°	1783.2	1825.0	1866.9	1877.3	1950.5	2048.0	2096.8	2164.0	2298.3	2398.9	2413.8
152.5°	1827.4	1859.1	1890.8	1898.7	1964.8	2052.8	2096.8	2154.2	2268.8	2354.8	2366.1
155°	1892.9	1916.4	1939.8	1945.7	1996.1	2063.3	2096.8	2142.5	2233.7	2302.0	2309.5
157.5°	1941.5	1964.2	1987.1	1992.8	2027.5	2073.7	2096.8	2132.3	2203.2	2256.4	2261.7
160°	1974.2	1991.9	2009.8	2014.2	2041.7	2078.5	2096.8	2127.2	2188.1	2233.7	2236.7
162.5°	2007.0	2020.3	2033.6	2036.9	2056.9	2083.5	2096.8	2122.5	2173.8	2212.3	2215.1
165°	2042.6	2054.6	2066.6	2069.7	2078.8	2090.8	2096.8	2115.2	2151.9	2179.4	2182.5
167.5°	2075.5	2081.1	2086.8	2088.2	2095.8	2106.0	2111.1	2123.1	2147.1	2165.2	2166.5
170°	2096.8	2102.5	2108.2	2109.6	2110.1	2110.7	2111.1	2123.1	2147.1	2165.2	2165.2
172.5°	2108.2	2109.5	2110.8	2111.1	2111.1	2111.1	2111.1	2120.6	2139.6	2153.8	2152.7
175°	2123.9	2123.9	2123.9	2123.9	2119.6	2113.9	2111.1	2117.1	2129.1	2138.1	2138.1
177.5°	2123.9	2123.9	2123.9	2123.9	2120.6	2116.1	2113.9	2118.7	2128.1	2135.3	2134.0
180°	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1131.2	1131.2
2.5°	1207.6	1200.3
5°	1553.2	1560.4
7.5°	2091.5	2087.8
10°	2600.7	2633.4
12.5°	2971.8	2979.0
15°	3197.2	3211.8
17.5°	3284.5	3288.2
20°	3288.2	3280.9
22.5°	3248.2	3240.9
25°	3200.9	3197.2
27.5°	3157.2	3160.9
30°	3139.1	3150.0
32.5°	3139.1	3157.2
35°	3146.3	3164.5
37.5°	3142.6	3164.5
40°	3128.1	3153.6
42.5°	3088.1	3106.3
45°	3026.3	3048.1
47.5°	2946.3	2960.9
50°	2844.4	2859.0
52.5°	2717.1	2720.8
55°	2564.3	2578.9
57.5°	2400.7	2404.3
60°	2218.8	2229.7
62.5°	2026.0	2026.0
65°	1822.4	1829.6
67.5°	1611.4	1629.6
70°	1396.7	1400.4
72.5°	1185.8	1185.8
75°	967.5	971.2
77.5°	760.2	760.2
80°	563.8	567.4
82.5°	389.2	396.4
85°	243.7	243.7
87.5°	112.8	101.9
90°	54.1	54.1
92.5°	216.9	173.9
95°	756.3	625.8
97.5°	1812.0	1563.7
100°	2610.8	2314.9
102.5°	3396.5	3143.1
105°	4398.2	4262.1
107.5°	5054.4	5087.3
110°	5304.6	5446.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5326.9	5544.9
115°	5185.7	5487.9
117.5°	4886.2	5221.3
120°	4644.8	4970.4
122.5°	4409.8	4731.0
125°	4074.5	4370.3
127.5°	3772.9	4022.5
130°	3595.3	3825.9
132.5°	3434.0	3640.5
135°	3213.0	3391.1
137.5°	3035.8	3181.6
140°	2914.2	3050.4
142.5°	2813.5	2930.7
145°	2662.3	2751.1
147.5°	2546.4	2619.9
150°	2473.5	2533.0
152.5°	2411.1	2456.0
155°	2339.3	2369.0
157.5°	2282.6	2303.5
160°	2248.7	2260.7
162.5°	2226.5	2237.9
165°	2194.5	2206.6
167.5°	2171.5	2176.6
170°	2165.2	2165.2
172.5°	2148.2	2143.8
175°	2138.1	2138.1
177.5°	2129.0	2123.9
180°	2123.9	2123.9



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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	4.25	5.05	5.29	6.10	7.52	17.44	18.24	18.48	19.29	20.71
	3H	4.95	5.67	6.00	6.73	8.16	19.28	20.00	20.33	21.06	22.50
	4H	5.25	5.93	6.31	6.99	8.43	19.93	20.61	20.99	21.67	23.11
	6H	5.49	6.12	6.57	7.18	8.64	20.36	20.99	21.43	22.05	23.51
	8H	5.56	6.16	6.64	7.24	8.69	20.48	21.08	21.56	22.16	23.61
	12H	5.57	6.14	6.66	7.22	8.69	20.55	21.12	21.63	22.19	23.67
4H	2H	11.47	12.15	12.53	13.21	14.65	17.71	18.39	18.78	19.45	20.89
	3H	13.03	13.60	14.10	14.68	16.14	19.75	20.32	20.83	21.41	22.87
	4H	13.12	13.64	14.20	14.72	16.20	20.52	21.04	21.60	22.12	23.60
	6H	13.13	13.57	14.22	14.68	16.15	21.06	21.51	22.15	22.61	24.08
	8H	13.10	13.52	14.19	14.62	16.10	21.22	21.64	22.32	22.74	24.23
	12H	13.05	13.43	14.16	14.54	16.04	21.32	21.70	22.43	22.80	24.30
8H	4H	14.56	14.98	15.65	16.08	17.57	20.58	20.99	21.67	22.09	23.58
	6H	14.80	15.15	15.91	16.28	17.77	21.21	21.55	22.32	22.69	24.18
	8H	14.82	15.12	15.94	16.24	17.75	21.43	21.73	22.55	22.85	24.36
	12H	14.78	15.05	15.91	16.17	17.71	21.57	21.84	22.70	22.96	24.50
12H	4H	14.70	15.08	15.81	16.19	17.69	20.52	20.91	21.63	22.01	23.51
	6H	15.06	15.37	16.18	16.48	17.99	21.19	21.49	22.31	22.61	24.12
	8H	15.13	15.39	16.25	16.51	18.05	21.42	21.69	22.54	22.80	24.34