

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: P937626

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937626
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

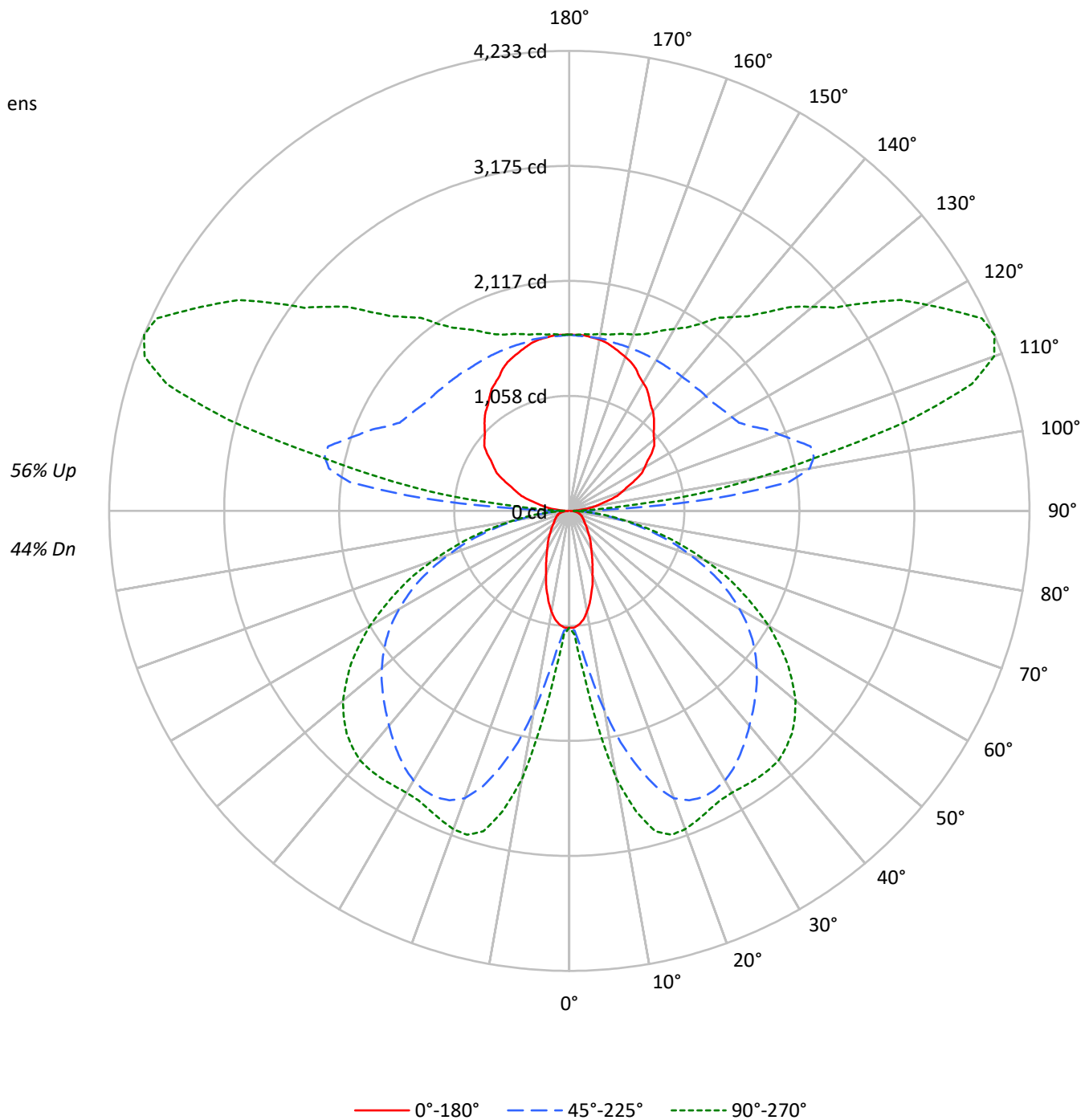
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18832.5 lumens
Efficiency: N/A
Efficacy: 108.2 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): 174
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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CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-3000K

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44					44															
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36					36															
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30					30															
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24					24															
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20					20															
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17					17															
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15					15															
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13					13															
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11					11															
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10					10															
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9					9															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3325	3325	3325
5°	3249	3844	4469
10°	2948	5605	7409
15°	2507	7324	8946
20°	2042	8489	9118
25°	1704	8886	8933
30°	1437	8944	8916
35°	1271	8798	9146
40°	1109	8607	9385
45°	1005	8469	9421
50°	922	8344	9265
55°	884	8161	8855
60°	906	7806	8206
65°	944	7265	7315
70°	1009	6340	6180
75°	1122	5174	4823
80°	1235	3593	3250
85°	1118	1910	1663

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	0.7
10°-20°	616.3	3.3
20°-30°	1077.9	5.7
30°-40°	1387.6	7.4
40°-50°	1549.9	8.2
50°-60°	1484.5	7.9
60°-70°	1176.4	6.2
70°-80°	691.8	3.7
80°-90°	198.4	1.1
90°-100°	790.3	4.2
100°-110°	2077.8	11.0
110°-120°	2154.5	11.4
120°-130°	1728.2	9.2
130°-140°	1356.0	7.2
140°-150°	1040.8	5.5
150°-160°	749.5	4.0
160°-170°	458.6	2.4
170°-180°	154.9	0.8
0°-30°	1833.3	9.7
0°-40°	3220.9	17.1
0°-60°	6255.3	33.2
0°-90°	8321.9	44.2
90°-120°	5022.6	26.7
90°-150°	9147.5	48.6
90°-180°	10511.0	55.8
0°-180°	18832.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1075	1075	1075	1075	1075	
5°	1047	1123	1265	1431	1483	97
15°	785	1448	2440	2959	3052	218
25°	501	1642	2907	3035	3038	231
35°	339	1569	2738	2893	3007	212
45°	232	1251	2420	2772	2896	179
55°	166	795	2053	2385	2451	151
65°	131	422	1524	1714	1739	130
75°	97	259	836	919	923	101
85°	34	80	207	228	232	37
90°	11	30	83	41	41	11
95°	104	409	1361	702	478	116
105°	374	567	2297	3488	3254	397
115°	665	807	1840	3670	4189	657
125°	925	1037	1674	2828	3336	821
135°	1102	1213	1621	2283	2589	853
145°	1279	1360	1601	1948	2100	801
155°	1445	1485	1601	1757	1808	664
165°	1559	1580	1601	1664	1684	440
175°	1621	1621	1612	1632	1632	154
180°	1621	1621	1621	1621	1621	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0
2.5°	1075.0	1075.0	1081.8	1085.3	1092.2	1095.7	1102.6	1109.5	1130.2	1133.7	1140.6
5°	1047.3	1061.1	1106.1	1123.4	1171.8	1237.4	1265.1	1310.0	1403.3	1430.9	1448.2
7.5°	1005.8	1036.9	1147.5	1175.2	1296.1	1468.9	1541.6	1638.3	1787.0	1859.5	1918.3
10°	940.1	1005.8	1202.8	1268.5	1465.5	1728.2	1863.0	1997.8	2222.5	2322.7	2360.7
12.5°	867.6	974.7	1261.6	1351.5	1634.9	2018.5	2181.0	2329.6	2585.4	2720.2	2740.9
15°	784.6	929.8	1316.9	1448.2	1814.6	2260.5	2440.2	2623.4	2861.9	2958.6	2982.9
17.5°	712.0	895.2	1368.7	1507.0	1952.8	2478.2	2661.4	2813.5	3007.0	3072.7	3090.1
20°	622.1	839.9	1403.3	1583.0	2098.0	2637.2	2813.5	2931.0	3062.3	3103.8	3110.7
22.5°	556.4	781.2	1424.0	1610.6	2194.8	2734.0	2882.6	2976.0	3065.8	3079.7	3083.1
25°	501.2	715.5	1420.5	1641.8	2277.8	2792.8	2906.8	2976.0	3027.8	3034.7	3034.7
27.5°	449.4	642.9	1406.8	1648.7	2340.0	2806.6	2896.5	2944.9	2969.0	2982.9	2982.9
30°	404.4	573.8	1372.1	1634.9	2367.7	2792.8	2865.3	2889.6	2913.7	2934.5	2944.9
32.5°	369.8	508.0	1320.3	1607.2	2371.1	2758.2	2810.0	2823.9	2858.4	2906.8	2924.1
35°	338.7	442.4	1261.6	1569.2	2350.3	2702.9	2737.5	2751.3	2820.4	2893.0	2917.2
37.5°	307.7	394.1	1185.5	1503.6	2319.3	2637.2	2661.4	2685.6	2792.8	2879.2	2906.8
40°	276.5	352.6	1095.7	1430.9	2270.9	2557.8	2578.4	2616.5	2758.2	2858.4	2886.1
42.5°	252.3	318.0	998.9	1354.9	2208.6	2467.9	2499.0	2554.3	2716.7	2823.9	2855.0
45°	231.6	283.4	895.2	1251.2	2129.2	2374.5	2419.5	2495.5	2668.3	2772.0	2799.7
47.5°	210.9	259.3	788.1	1144.1	2042.7	2281.2	2340.0	2426.3	2602.7	2702.9	2727.1
50°	193.6	235.0	680.9	1030.0	1949.4	2181.0	2250.1	2340.0	2519.7	2613.0	2644.2
52.5°	179.7	214.3	580.7	916.0	1842.3	2077.3	2156.8	2250.1	2419.5	2509.4	2530.1
55°	165.9	197.0	494.3	794.9	1731.7	1966.7	2053.1	2142.9	2308.9	2384.9	2398.7
57.5°	159.0	183.2	421.7	680.9	1614.1	1842.3	1939.1	2022.0	2177.6	2236.2	2250.1
60°	148.6	172.8	366.3	584.1	1486.2	1724.7	1807.7	1890.7	2022.0	2070.4	2080.8
62.5°	138.2	165.9	324.9	490.8	1354.9	1586.5	1669.4	1745.5	1856.1	1890.7	1904.4
65°	131.3	159.0	293.8	421.7	1220.1	1441.3	1524.2	1590.0	1679.8	1714.3	1721.3
67.5°	124.4	152.1	269.6	362.9	1085.3	1296.1	1358.4	1420.5	1489.7	1524.2	1527.7
70°	114.1	145.2	248.9	321.4	947.0	1130.2	1182.1	1247.8	1303.1	1320.3	1330.7
72.5°	107.2	134.8	235.0	290.3	805.3	971.3	1019.7	1057.7	1106.1	1123.4	1123.4
75°	96.8	121.0	221.2	259.3	660.1	794.9	836.5	874.5	912.5	919.4	909.0
77.5°	86.4	107.2	190.1	217.7	515.0	629.1	663.6	684.4	715.5	722.4	725.9
80°	72.6	93.3	148.6	169.3	373.3	463.1	487.4	504.6	532.3	532.3	539.2
82.5°	55.3	72.6	107.2	121.0	252.3	318.0	338.7	349.1	366.3	366.3	366.3
85°	34.5	44.9	69.2	79.5	152.1	193.6	207.4	210.9	224.6	228.1	228.1
87.5°	17.3	24.2	44.9	48.4	79.5	100.2	100.2	107.2	107.2	103.7	100.2
90°	10.9	19.6	28.3	30.4	47.9	71.1	82.7	73.5	55.1	41.3	41.3
92.5°	43.5	117.5	191.5	210.0	295.3	408.9	465.8	408.2	293.1	206.8	198.6
95°	104.5	239.9	375.3	409.2	726.5	1149.7	1361.2	1214.7	921.7	701.8	676.9
97.5°	180.6	300.1	419.5	449.4	978.6	1684.2	2037.0	1944.4	1759.2	1620.2	1572.9
100°	239.4	347.7	456.0	483.1	1070.3	1853.3	2244.9	2251.7	2265.2	2275.3	2218.9
102.5°	289.4	390.5	491.6	516.9	1112.5	1906.6	2303.7	2421.6	2657.6	2834.6	2786.2
105°	374.4	459.9	545.5	566.9	1143.7	1912.6	2297.1	2561.7	3090.8	3487.5	3461.5
107.5°	461.4	541.2	621.0	640.9	1149.4	1827.4	2166.5	2535.5	3273.5	3827.0	3833.3
110°	520.2	592.2	664.2	682.3	1140.7	1752.0	2057.7	2470.2	3295.2	3914.0	3941.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	577.8	646.5	715.2	732.3	1141.1	1686.2	1958.7	2380.9	3225.3	3858.6	3900.2
115°	664.8	728.2	791.5	807.4	1151.6	1610.6	1840.1	2246.8	3060.2	3670.3	3727.9
117.5°	750.8	808.4	865.9	880.3	1173.1	1563.3	1758.5	2125.5	2859.7	3410.3	3474.2
120°	800.9	855.0	909.3	922.8	1190.5	1547.4	1725.8	2061.2	2732.0	3235.1	3297.2
122.5°	849.9	904.6	959.2	972.8	1215.5	1539.1	1700.8	2002.8	2606.9	3059.9	3121.2
125°	925.0	974.8	1024.6	1037.0	1249.2	1532.2	1673.6	1930.2	2443.3	2828.1	2884.5
127.5°	985.8	1036.2	1086.5	1099.0	1282.9	1528.2	1650.8	1871.0	2311.6	2642.0	2689.6
130°	1018.5	1072.7	1126.8	1140.4	1307.6	1530.6	1642.0	1838.2	2230.4	2524.5	2568.6
132.5°	1052.3	1106.4	1160.6	1174.1	1327.5	1532.1	1634.4	1809.9	2161.1	2424.4	2463.8
135°	1102.3	1151.6	1201.0	1213.3	1349.3	1530.7	1621.4	1768.4	2062.4	2282.9	2316.9
137.5°	1153.4	1202.3	1251.1	1263.3	1381.9	1540.1	1619.2	1743.5	1992.1	2178.5	2206.3
140°	1195.9	1240.9	1285.8	1297.1	1401.9	1541.7	1611.5	1718.9	1933.6	2094.7	2120.7
142.5°	1228.5	1270.1	1311.7	1322.1	1418.5	1547.2	1611.5	1705.9	1894.5	2035.9	2058.3
145°	1278.6	1314.9	1351.1	1360.2	1440.3	1547.2	1600.7	1677.8	1832.1	1947.8	1964.7
147.5°	1328.6	1363.9	1399.3	1408.1	1472.3	1557.9	1600.7	1661.4	1782.8	1873.8	1887.9
150°	1361.2	1393.2	1425.1	1433.1	1489.0	1563.5	1600.7	1652.0	1754.4	1831.4	1842.7
152.5°	1395.0	1419.1	1443.4	1449.4	1499.8	1567.0	1600.7	1644.5	1731.9	1797.6	1806.2
155°	1445.0	1462.9	1480.9	1485.3	1523.8	1575.1	1600.7	1635.5	1705.1	1757.3	1763.0
157.5°	1482.0	1499.5	1516.9	1521.3	1547.8	1583.1	1600.7	1627.7	1681.9	1722.5	1726.5
160°	1507.0	1520.7	1534.2	1537.6	1558.6	1586.7	1600.7	1623.9	1670.3	1705.1	1707.4
162.5°	1532.1	1542.2	1552.4	1554.9	1570.2	1590.5	1600.7	1620.2	1659.4	1688.8	1691.0
165°	1559.3	1568.4	1577.7	1580.0	1586.8	1596.1	1600.7	1614.7	1642.7	1663.8	1666.0
167.5°	1584.3	1588.7	1593.0	1594.2	1599.9	1607.7	1611.5	1620.8	1639.2	1652.9	1653.9
170°	1600.7	1605.1	1609.4	1610.5	1610.8	1611.3	1611.5	1620.8	1639.2	1652.9	1652.9
172.5°	1609.3	1610.3	1611.3	1611.5	1611.5	1611.5	1611.5	1618.8	1633.3	1644.2	1643.3
175°	1621.4	1621.4	1621.4	1621.4	1618.1	1613.7	1611.5	1616.1	1625.3	1632.2	1632.2
177.5°	1621.4	1621.4	1621.4	1621.4	1618.8	1615.4	1613.7	1617.4	1624.6	1630.0	1629.0
180°	1621.4	1621.4	1621.4	1621.4	1621.4	1621.4	1621.4	1621.4	1621.4	1621.4	1621.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1075.0	1075.0
2.5°	1147.5	1140.6
5°	1475.9	1482.8
7.5°	1987.5	1984.0
10°	2471.3	2502.4
12.5°	2823.9	2830.8
15°	3038.2	3052.0
17.5°	3121.1	3124.6
20°	3124.6	3117.7
22.5°	3086.6	3079.7
25°	3041.7	3038.2
27.5°	3000.1	3003.6
30°	2982.9	2993.3
32.5°	2982.9	3000.1
35°	2989.8	3007.0
37.5°	2986.3	3007.0
40°	2972.5	2996.7
42.5°	2934.5	2951.7
45°	2875.7	2896.5
47.5°	2799.7	2813.5
50°	2702.9	2716.7
52.5°	2581.9	2585.4
55°	2436.7	2450.6
57.5°	2281.2	2284.6
60°	2108.4	2118.8
62.5°	1925.2	1925.2
65°	1731.7	1738.6
67.5°	1531.2	1548.5
70°	1327.2	1330.7
72.5°	1126.8	1126.8
75°	919.4	922.9
77.5°	722.4	722.4
80°	535.8	539.2
82.5°	369.8	376.7
85°	231.6	231.6
87.5°	107.2	96.8
90°	41.3	41.3
92.5°	165.6	132.7
95°	577.3	477.7
97.5°	1383.3	1193.7
100°	1993.0	1767.2
102.5°	2592.8	2399.4
105°	3357.5	3253.6
107.5°	3858.5	3883.6
110°	4049.5	4157.9



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CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4066.6	4232.9
115°	3958.7	4189.3
117.5°	3730.0	3985.9
120°	3545.8	3794.4
122.5°	3366.3	3611.5
125°	3110.4	3336.2
127.5°	2880.2	3070.8
130°	2744.6	2920.6
132.5°	2621.5	2779.2
135°	2452.8	2588.7
137.5°	2317.5	2428.8
140°	2224.7	2328.7
142.5°	2147.7	2237.2
145°	2032.4	2100.1
147.5°	1943.9	2000.0
150°	1888.2	1933.6
152.5°	1840.5	1874.9
155°	1785.8	1808.5
157.5°	1742.5	1758.5
160°	1716.6	1725.8
162.5°	1699.7	1708.4
165°	1675.3	1684.4
167.5°	1657.7	1661.6
170°	1652.9	1652.9
172.5°	1639.9	1636.5
175°	1632.2	1632.2
177.5°	1625.2	1621.4
180°	1621.4	1621.4



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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	4.63	5.47	5.63	6.49	7.84	17.82	18.67	18.82	19.68	21.03
	3H	5.33	6.09	6.34	7.12	8.48	19.66	20.42	20.67	21.45	22.82
	4H	5.63	6.35	6.65	7.38	8.75	20.31	21.03	21.33	22.06	23.43
	6H	5.88	6.54	6.91	7.57	8.96	20.75	21.41	21.78	22.44	23.83
	8H	5.95	6.58	6.99	7.63	9.01	20.87	21.50	21.91	22.55	23.93
	12H	5.96	6.57	7.01	7.61	9.02	20.94	21.54	21.98	22.58	23.99
4H	2H	11.85	12.57	12.88	13.60	14.97	18.09	18.81	19.12	19.84	21.21
	3H	13.42	14.02	14.45	15.07	16.46	20.14	20.74	21.18	21.80	23.19
	4H	13.51	14.06	14.55	15.11	16.52	20.91	21.46	21.96	22.51	23.92
	6H	13.52	14.00	14.57	15.06	16.47	21.45	21.93	22.51	23.00	24.41
	8H	13.50	13.94	14.55	15.00	16.43	21.62	22.06	22.67	23.13	24.55
	12H	13.45	13.85	14.52	14.93	16.36	21.71	22.12	22.79	23.19	24.62
8H	4H	14.96	15.40	16.01	16.46	17.89	20.97	21.41	22.03	22.48	23.90
	6H	15.20	15.57	16.28	16.67	18.09	21.60	21.97	22.68	23.08	24.50
	8H	15.22	15.54	16.30	16.63	18.07	21.83	22.15	22.91	23.24	24.68
	12H	15.18	15.47	16.27	16.55	18.03	21.97	22.26	23.06	23.34	24.82
12H	4H	15.10	15.50	16.17	16.58	18.01	20.92	21.32	22.00	22.40	23.83
	6H	15.46	15.78	16.54	16.87	18.31	21.59	21.91	22.67	23.00	24.44
	8H	15.53	15.81	16.62	16.89	18.37	21.82	22.10	22.91	23.19	24.67