

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: P937729

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937729
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-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

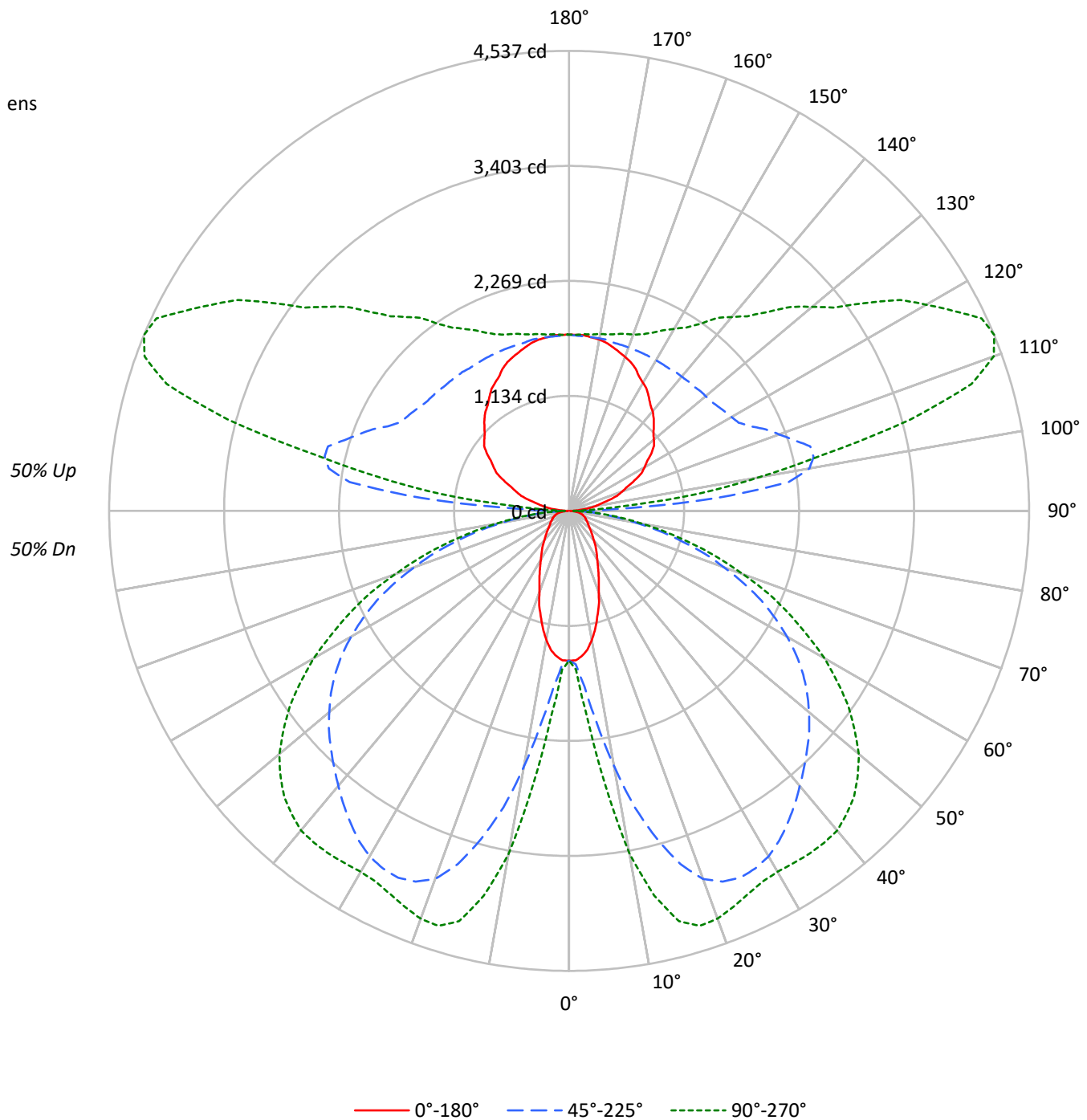
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22689.1 lumens
Efficiency: N/A
Efficacy: 109.9 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 (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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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°	4565	4565	4565
5°	4461	5277	6136
10°	4048	7694	10172
15°	3442	10055	12282
20°	2803	11655	12518
25°	2339	12199	12263
30°	1973	12279	12240
35°	1746	12079	12556
40°	1522	11817	12884
45°	1379	11627	12934
50°	1266	11455	12720
55°	1214	11204	12156
60°	1244	10717	11266
65°	1296	9974	10043
70°	1385	8704	8484
75°	1539	7104	6621
80°	1694	4933	4461
85°	1539	2621	2283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12934 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.9	0.8
10°-20°	846.1	3.7
20°-30°	1479.9	6.5
30°-40°	1905.1	8.4
40°-50°	2127.9	9.4
50°-60°	2038.0	9.0
60°-70°	1615.1	7.1
70°-80°	949.7	4.2
80°-90°	270.5	1.2
90°-100°	847.1	3.7
100°-110°	2227.2	9.8
110°-120°	2309.3	10.2
120°-130°	1852.4	8.2
130°-140°	1453.4	6.4
140°-150°	1115.6	4.9
150°-160°	803.4	3.5
160°-170°	491.6	2.2
170°-180°	166.1	0.7
0°-30°	2516.8	11.1
0°-40°	4421.9	19.5
0°-60°	8587.8	37.8
0°-90°	11423.2	50.3
90°-120°	5383.6	23.7
90°-150°	9804.9	43.2
90°-180°	11266.0	49.7
0°-180°	22689.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1476	1476	1476	1476	1476	
5°	1438	1542	1737	1965	2036	133
15°	1077	1988	3350	4062	4190	300
25°	688	2254	3991	4166	4171	317
35°	465	2154	3758	3972	4128	290
45°	318	1718	3322	3806	3976	246
55°	228	1091	2819	3274	3364	208
65°	180	579	2093	2354	2387	179
75°	133	356	1148	1262	1267	139
85°	48	109	285	313	318	50
90°	12	33	89	44	44	13
95°	112	439	1459	752	512	124
105°	401	608	2462	3738	3487	425
115°	713	865	1972	3934	4490	704
125°	991	1112	1794	3031	3576	880
135°	1182	1300	1738	2447	2775	914
145°	1370	1458	1716	2088	2251	859
155°	1549	1592	1716	1884	1938	712
165°	1671	1694	1716	1783	1806	472
175°	1738	1738	1727	1750	1750	165
180°	1738	1738	1738	1738	1738	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8
2.5°	1475.8	1475.8	1485.2	1490.0	1499.5	1504.2	1513.8	1523.2	1551.7	1556.5	1565.9
5°	1437.8	1456.7	1518.4	1542.2	1608.6	1698.8	1736.8	1798.5	1926.5	1964.6	1988.2
7.5°	1380.8	1423.6	1575.4	1613.4	1779.5	2016.7	2116.4	2249.3	2453.3	2553.0	2633.6
10°	1290.7	1380.8	1651.3	1741.5	2012.0	2372.6	2557.6	2742.7	3051.2	3188.7	3241.0
12.5°	1191.1	1338.1	1732.0	1855.4	2244.5	2771.2	2994.2	3198.3	3549.5	3734.5	3762.9
15°	1077.2	1276.4	1807.9	1988.2	2491.3	3103.4	3350.1	3601.6	3929.0	4062.0	4095.1
17.5°	977.5	1229.0	1879.1	2068.9	2681.0	3402.3	3653.9	3862.6	4128.3	4218.5	4242.3
20°	854.1	1153.1	1926.5	2173.3	2880.4	3620.6	3862.6	4023.9	4204.3	4261.2	4270.7
22.5°	763.9	1072.4	1955.0	2211.2	3013.2	3753.5	3957.5	4085.6	4209.0	4228.0	4232.7
25°	688.0	982.3	1950.3	2254.0	3127.1	3834.2	3990.7	4085.6	4156.8	4166.3	4166.3
27.5°	616.9	882.6	1931.3	2263.5	3212.5	3853.1	3976.5	4042.9	4076.2	4095.1	4095.1
30°	555.2	787.7	1883.8	2244.5	3250.4	3834.2	3933.8	3967.0	4000.3	4028.7	4042.9
32.5°	507.7	697.6	1812.7	2206.6	3255.2	3786.7	3857.9	3876.9	3924.3	3990.7	4014.5
35°	465.0	607.4	1732.0	2154.3	3226.8	3710.8	3758.2	3777.2	3872.1	3971.8	4004.9
37.5°	422.3	540.9	1627.6	2064.2	3184.1	3620.6	3653.9	3687.0	3834.2	3952.8	3990.7
40°	379.6	484.0	1504.2	1964.6	3117.6	3511.5	3539.9	3592.2	3786.7	3924.3	3962.2
42.5°	346.4	436.6	1371.4	1860.2	3032.2	3388.1	3430.8	3506.7	3729.8	3876.9	3919.6
45°	317.9	389.1	1229.0	1717.8	2923.0	3260.0	3321.7	3426.1	3663.3	3805.7	3843.6
47.5°	289.5	355.9	1081.9	1570.7	2804.4	3131.8	3212.5	3331.1	3573.2	3710.8	3744.0
50°	265.7	322.7	934.8	1414.1	2676.3	2994.2	3089.1	3212.5	3459.3	3587.4	3630.1
52.5°	246.8	294.2	797.2	1257.5	2529.2	2851.9	2961.1	3089.1	3321.7	3445.0	3473.5
55°	227.8	270.5	678.6	1091.4	2377.3	2700.0	2818.7	2942.1	3169.8	3274.2	3293.2
57.5°	218.3	251.5	579.0	934.8	2216.0	2529.2	2662.0	2776.0	2989.5	3070.1	3089.1
60°	204.0	237.2	503.0	802.0	2040.5	2367.9	2481.7	2595.7	2776.0	2842.3	2856.6
62.5°	189.8	227.8	446.0	673.8	1860.2	2178.1	2291.9	2396.3	2548.2	2595.7	2614.7
65°	180.3	218.3	403.3	579.0	1675.1	1978.8	2092.6	2182.8	2306.2	2353.6	2363.1
67.5°	170.9	208.8	370.1	498.3	1490.0	1779.5	1864.8	1950.3	2045.2	2092.6	2097.4
70°	156.6	199.3	341.6	441.3	1300.2	1551.7	1622.8	1713.0	1788.9	1812.7	1826.9
72.5°	147.1	185.1	322.7	398.6	1105.7	1333.5	1399.8	1452.1	1518.4	1542.2	1542.2
75°	132.8	166.1	303.7	355.9	906.3	1091.4	1148.4	1200.5	1252.7	1262.2	1248.0
77.5°	118.6	147.1	261.0	298.9	707.0	863.7	911.1	939.6	982.3	991.7	996.5
80°	99.6	128.1	204.0	232.6	512.5	635.9	669.1	692.8	730.8	730.8	740.3
82.5°	75.9	99.6	147.1	166.1	346.4	436.6	465.0	479.2	503.0	503.0	503.0
85°	47.5	61.7	94.9	109.2	208.8	265.7	284.7	289.5	308.5	313.2	313.2
87.5°	23.7	33.2	61.7	66.5	109.2	137.6	137.6	147.1	147.1	142.4	137.6
90°	11.7	21.0	30.3	32.6	51.3	76.2	88.6	78.8	59.1	44.3	44.3
92.5°	46.6	125.9	205.3	225.1	316.5	438.3	499.2	437.5	314.2	221.6	212.8
95°	112.0	257.1	402.3	438.6	778.7	1232.3	1459.1	1302.0	987.9	752.3	725.5
97.5°	193.6	321.6	449.7	481.7	1048.9	1805.2	2183.4	2084.1	1885.6	1736.7	1685.9
100°	256.6	372.7	488.8	517.8	1147.3	1986.5	2406.2	2413.5	2428.0	2438.8	2378.4
102.5°	310.2	418.6	526.9	554.0	1192.4	2043.6	2469.2	2595.7	2848.6	3038.4	2986.5
105°	401.3	493.0	584.8	607.7	1225.9	2050.1	2462.2	2745.8	3312.9	3738.2	3710.3
107.5°	494.6	580.1	665.6	687.0	1232.0	1958.8	2322.2	2717.8	3508.8	4102.1	4108.8
110°	557.6	634.8	712.0	731.3	1222.7	1877.9	2205.5	2647.7	3532.1	4195.3	4224.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	619.3	693.0	766.6	785.0	1223.2	1807.3	2099.4	2552.0	3457.1	4135.9	4180.5
115°	712.6	780.6	848.4	865.4	1234.4	1726.3	1972.3	2408.3	3280.2	3934.1	3995.9
117.5°	804.8	866.5	928.2	943.6	1257.4	1675.6	1884.8	2278.3	3065.2	3655.4	3723.9
120°	858.4	916.5	974.6	989.1	1276.1	1658.6	1849.9	2209.4	2928.3	3467.6	3534.2
122.5°	911.0	969.6	1028.1	1042.8	1302.9	1649.7	1823.1	2146.7	2794.2	3279.8	3345.5
125°	991.4	1044.8	1098.2	1111.6	1339.0	1642.3	1793.9	2068.9	2618.9	3031.3	3091.8
127.5°	1056.7	1110.6	1164.6	1178.0	1375.1	1638.0	1769.4	2005.5	2477.7	2831.9	2882.9
130°	1091.7	1149.8	1207.8	1222.3	1401.6	1640.6	1760.1	1970.3	2390.7	2706.0	2753.2
132.5°	1127.9	1186.0	1244.0	1258.5	1422.9	1642.2	1751.8	1940.0	2316.4	2598.7	2640.9
135°	1181.6	1234.4	1287.3	1300.5	1446.3	1640.7	1737.9	1895.5	2210.6	2447.0	2483.4
137.5°	1236.3	1288.7	1341.0	1354.1	1481.2	1650.8	1735.6	1868.8	2135.2	2335.1	2364.9
140°	1281.9	1330.1	1378.2	1390.3	1502.6	1652.5	1727.3	1842.4	2072.6	2245.3	2273.1
142.5°	1316.8	1361.4	1406.0	1417.1	1520.5	1658.4	1727.3	1828.5	2030.6	2182.3	2206.2
145°	1370.5	1409.3	1448.2	1458.0	1543.9	1658.4	1715.7	1798.4	1963.7	2087.8	2105.9
147.5°	1424.1	1462.0	1499.8	1509.3	1578.1	1669.9	1715.7	1780.8	1910.9	2008.5	2023.5
150°	1459.1	1493.3	1527.5	1536.1	1596.0	1675.8	1715.7	1770.7	1880.5	1963.0	1975.1
152.5°	1495.2	1521.1	1547.1	1553.6	1607.6	1679.7	1715.7	1762.7	1856.4	1926.8	1936.0
155°	1548.9	1568.1	1587.3	1592.1	1633.3	1688.3	1715.7	1753.0	1827.6	1883.6	1889.7
157.5°	1588.5	1607.2	1625.9	1630.6	1659.0	1696.9	1715.7	1744.7	1802.8	1846.3	1850.6
160°	1615.4	1629.9	1644.4	1648.1	1670.6	1700.7	1715.7	1740.6	1790.3	1827.6	1830.1
162.5°	1642.2	1653.0	1664.0	1666.7	1683.0	1704.8	1715.7	1736.7	1778.7	1810.2	1812.5
165°	1671.3	1681.2	1691.1	1693.5	1700.9	1710.8	1715.7	1730.8	1760.8	1783.3	1785.8
167.5°	1698.2	1702.8	1707.5	1708.7	1714.9	1723.2	1727.3	1737.2	1757.0	1771.7	1772.8
170°	1715.7	1720.4	1725.1	1726.2	1726.6	1727.1	1727.3	1737.2	1757.0	1771.7	1771.7
172.5°	1725.0	1726.0	1727.1	1727.3	1727.3	1727.3	1727.3	1735.1	1750.7	1762.4	1761.5
175°	1737.9	1737.9	1737.9	1737.9	1734.3	1729.7	1727.3	1732.3	1742.1	1749.5	1749.5
177.5°	1737.9	1737.9	1737.9	1737.9	1735.2	1731.5	1729.7	1733.6	1741.4	1747.2	1746.1
180°	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1475.8	1475.8
2.5°	1575.4	1565.9
5°	2026.3	2035.7
7.5°	2728.5	2723.7
10°	3392.8	3435.5
12.5°	3876.9	3886.3
15°	4171.0	4190.0
17.5°	4285.0	4289.6
20°	4289.6	4280.2
22.5°	4237.5	4228.0
25°	4175.8	4171.0
27.5°	4118.9	4123.6
30°	4095.1	4109.3
32.5°	4095.1	4118.9
35°	4104.6	4128.3
37.5°	4099.9	4128.3
40°	4080.9	4114.1
42.5°	4028.7	4052.4
45°	3948.0	3976.5
47.5°	3843.6	3862.6
50°	3710.8	3729.8
52.5°	3544.7	3549.5
55°	3345.4	3364.4
57.5°	3131.8	3136.6
60°	2894.6	2908.8
62.5°	2643.1	2643.1
65°	2377.3	2386.9
67.5°	2102.2	2125.9
70°	1822.2	1826.9
72.5°	1546.9	1546.9
75°	1262.2	1267.0
77.5°	991.7	991.7
80°	735.5	740.3
82.5°	507.7	517.3
85°	317.9	317.9
87.5°	147.1	132.8
90°	44.3	44.3
92.5°	177.5	142.3
95°	618.8	512.0
97.5°	1482.7	1279.5
100°	2136.3	1894.2
102.5°	2779.2	2571.8
105°	3598.8	3487.4
107.5°	4135.8	4162.7
110°	4340.5	4456.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4358.8	4537.2
115°	4243.2	4490.4
117.5°	3998.1	4272.4
120°	3800.6	4067.1
122.5°	3608.2	3871.1
125°	3333.9	3576.0
127.5°	3087.2	3291.5
130°	2941.8	3130.5
132.5°	2809.9	2978.9
135°	2629.0	2774.8
137.5°	2484.1	2603.3
140°	2384.6	2496.0
142.5°	2302.1	2398.0
145°	2178.5	2251.1
147.5°	2083.6	2143.7
150°	2023.9	2072.6
152.5°	1972.8	2009.6
155°	1914.1	1938.5
157.5°	1867.7	1884.8
160°	1840.0	1849.9
162.5°	1821.8	1831.2
165°	1795.7	1805.5
167.5°	1776.9	1781.0
170°	1771.7	1771.7
172.5°	1757.8	1754.2
175°	1749.5	1749.5
177.5°	1742.0	1737.9
180°	1737.9	1737.9



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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	6.32	7.22	7.26	8.19	9.45	19.51	20.41	20.46	21.38	22.64
	3H	7.03	7.84	7.98	8.82	10.10	21.36	22.17	22.31	23.15	24.43
	4H	7.33	8.10	8.30	9.08	10.37	22.01	22.78	22.98	23.76	25.05
	6H	7.58	8.29	8.56	9.27	10.58	22.45	23.16	23.43	24.14	25.45
	8H	7.65	8.32	8.64	9.33	10.63	22.57	23.25	23.56	24.25	25.55
	12H	7.67	8.31	8.66	9.31	10.64	22.64	23.29	23.64	24.28	25.61
4H	2H	13.55	14.32	14.52	15.30	16.59	19.79	20.56	20.76	21.54	22.83
	3H	15.12	15.76	16.10	16.77	18.08	21.84	22.49	22.83	23.50	24.81
	4H	15.21	15.80	16.21	16.81	18.14	22.61	23.21	23.61	24.21	25.54
	6H	15.23	15.74	16.23	16.76	18.09	23.16	23.67	24.17	24.70	26.03
	8H	15.20	15.68	16.21	16.70	18.05	23.33	23.80	24.34	24.82	26.17
	12H	15.16	15.59	16.19	16.63	17.98	23.43	23.86	24.45	24.89	26.24
8H	4H	16.67	17.14	17.67	18.16	19.51	22.68	23.15	23.69	24.18	25.52
	6H	16.91	17.30	17.94	18.37	19.71	23.31	23.71	24.35	24.77	26.11
	8H	16.93	17.28	17.97	18.32	19.68	23.54	23.89	24.58	24.93	26.29
	12H	16.90	17.20	17.95	18.25	19.65	23.69	23.99	24.73	25.04	26.44
12H	4H	16.81	17.24	17.84	18.28	19.63	22.63	23.06	23.66	24.10	25.45
	6H	17.17	17.52	18.21	18.57	19.93	23.30	23.65	24.34	24.69	26.05
	8H	17.24	17.55	18.29	18.59	19.99	23.53	23.84	24.58	24.88	26.29