

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: P937777

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937777
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-B2750-1D-UNV-STD-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

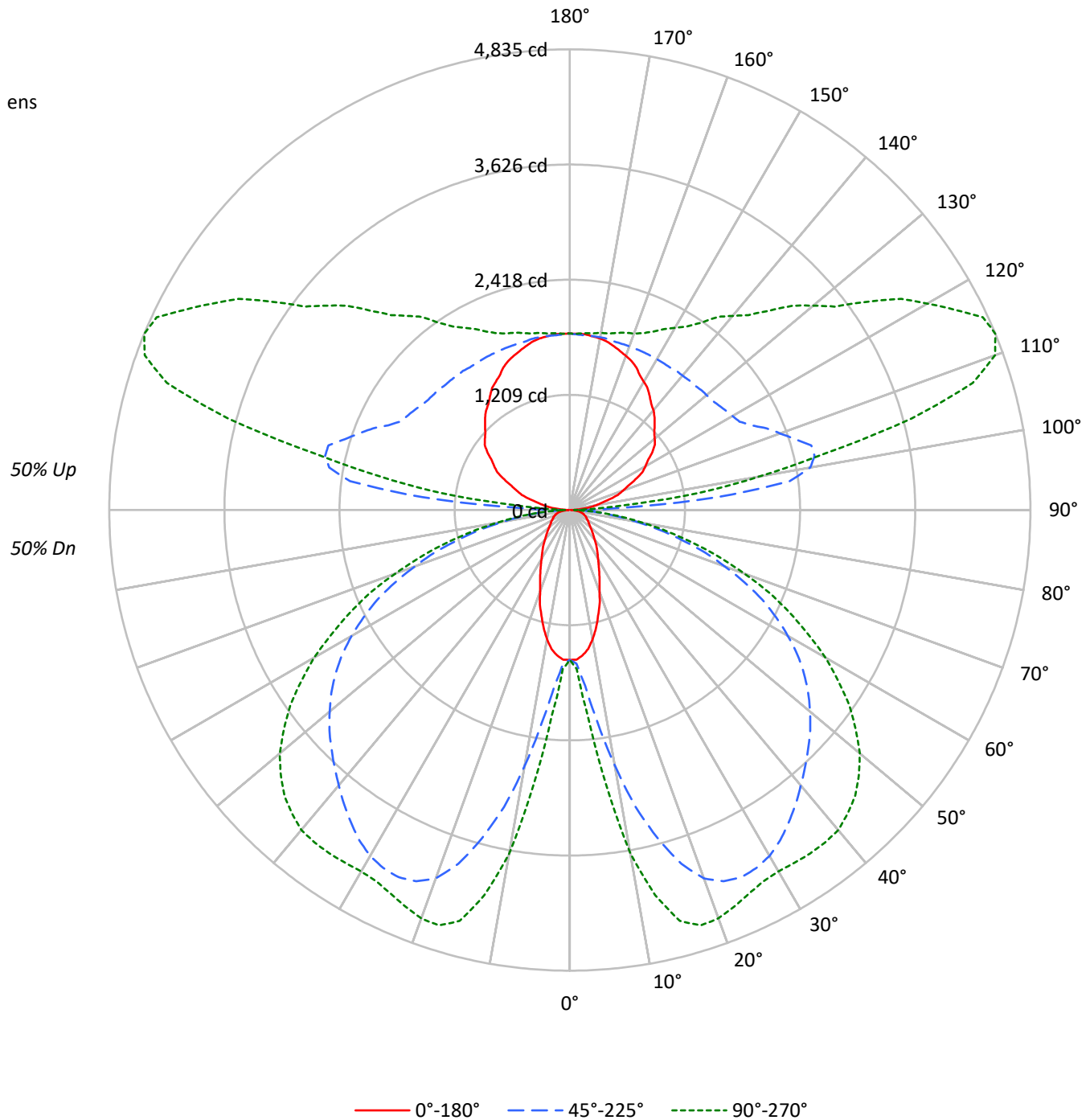
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24176.9 lumens
Efficiency: N/A
Efficacy: 117.1 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
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°	4864	4864	4864
5°	4753	5623	6538
10°	4314	8199	10839
15°	3667	10714	13088
20°	2987	12419	13339
25°	2493	12999	13067
30°	2103	13085	13043
35°	1860	12871	13380
40°	1622	12592	13729
45°	1469	12389	13783
50°	1349	12207	13554
55°	1293	11939	12953
60°	1326	11420	12005
65°	1381	10628	10701
70°	1475	9275	9040
75°	1640	7570	7055
80°	1806	5255	4754
85°	1640	2794	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13783 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.4	0.8
10°-20°	901.5	3.7
20°-30°	1576.9	6.5
30°-40°	2030.0	8.4
40°-50°	2267.4	9.4
50°-60°	2171.7	9.0
60°-70°	1721.0	7.1
70°-80°	1012.0	4.2
80°-90°	288.2	1.2
90°-100°	902.7	3.7
100°-110°	2373.2	9.8
110°-120°	2460.7	10.2
120°-130°	1973.8	8.2
130°-140°	1548.7	6.4
140°-150°	1188.7	4.9
150°-160°	856.1	3.5
160°-170°	523.8	2.2
170°-180°	177.0	0.7
0°-30°	2681.9	11.1
0°-40°	4711.9	19.5
0°-60°	9150.9	37.8
0°-90°	12172.2	50.3
90°-120°	5736.6	23.7
90°-150°	10447.9	43.2
90°-180°	12005.0	49.7
0°-180°	24176.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1532	1643	1851	2093	2169	141
15°	1148	2119	3570	4328	4465	319
25°	733	2402	4252	4440	4445	338
35°	496	2296	4005	4232	4399	309
45°	339	1830	3540	4055	4237	262
55°	243	1163	3004	3489	3585	221
65°	192	617	2230	2508	2543	190
75°	142	379	1224	1345	1350	148
85°	51	116	303	334	339	54
90°	12	35	94	47	47	14
95°	119	467	1555	802	546	132
105°	428	648	2624	3983	3716	453
115°	759	922	2102	4192	4785	750
125°	1056	1184	1912	3230	3810	938
135°	1259	1386	1852	2607	2957	974
145°	1460	1554	1828	2225	2399	915
155°	1650	1696	1828	2007	2066	758
165°	1781	1805	1828	1900	1924	503
175°	1852	1852	1841	1864	1864	176
180°	1852	1852	1852	1852	1852	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6
2.5°	1572.6	1572.6	1582.6	1587.7	1597.8	1602.9	1613.0	1623.1	1653.5	1658.5	1668.6
5°	1532.0	1552.3	1618.0	1643.3	1714.1	1810.2	1850.7	1916.4	2052.9	2093.4	2118.6
7.5°	1471.4	1516.9	1678.8	1719.2	1896.2	2149.0	2255.1	2396.8	2614.2	2720.4	2806.3
10°	1375.4	1471.4	1759.6	1855.6	2143.9	2528.1	2725.4	2922.6	3251.2	3397.9	3453.5
12.5°	1269.2	1425.9	1845.6	1977.1	2391.7	2952.9	3190.6	3408.0	3782.2	3979.4	4009.7
15°	1147.8	1360.1	1926.5	2118.6	2654.6	3306.9	3569.8	3837.8	4186.7	4328.3	4363.7
17.5°	1041.6	1309.6	2002.4	2204.5	2856.8	3625.4	3893.5	4115.9	4399.0	4495.1	4520.4
20°	910.1	1228.7	2052.9	2315.8	3069.3	3858.0	4115.9	4287.8	4480.0	4540.7	4550.7
22.5°	814.0	1142.7	2083.2	2356.2	3210.8	3999.6	4217.1	4353.5	4485.0	4505.2	4510.3
25°	733.2	1046.7	2078.2	2401.8	3332.1	4085.6	4252.4	4353.5	4429.4	4439.5	4439.5
27.5°	657.4	940.5	2057.9	2411.9	3423.2	4105.8	4237.3	4308.0	4343.5	4363.7	4363.7
30°	591.6	839.3	2007.3	2391.7	3463.6	4085.6	4191.8	4227.1	4262.6	4292.9	4308.0
32.5°	541.0	743.3	1931.5	2351.3	3468.7	4035.0	4110.9	4131.1	4181.6	4252.4	4277.7
35°	495.5	647.2	1845.6	2295.6	3438.4	3954.1	4004.6	4024.9	4126.0	4232.2	4267.6
37.5°	450.0	576.4	1734.3	2199.6	3392.9	3858.0	3893.5	3928.8	4085.6	4212.0	4252.4
40°	404.5	515.7	1602.9	2093.4	3322.1	3741.8	3772.1	3827.7	4035.0	4181.6	4222.0
42.5°	369.1	465.2	1461.3	1982.1	3231.0	3610.3	3655.8	3736.7	3974.3	4131.1	4176.6
45°	338.7	414.6	1309.6	1830.4	3114.7	3473.7	3539.5	3650.7	3903.5	4055.2	4095.7
47.5°	308.5	379.3	1152.9	1673.7	2988.3	3337.2	3423.2	3549.5	3807.5	3954.1	3989.5
50°	283.2	343.8	996.1	1506.8	2851.8	3190.6	3291.7	3423.2	3686.1	3822.6	3868.2
52.5°	262.9	313.5	849.5	1339.9	2695.1	3038.9	3155.2	3291.7	3539.5	3671.0	3701.2
55°	242.7	288.2	723.1	1162.9	2533.2	2877.0	3003.5	3135.0	3377.6	3488.9	3509.1
57.5°	232.6	268.0	616.9	996.1	2361.3	2695.1	2836.6	2958.0	3185.5	3271.5	3291.7
60°	217.4	252.8	535.9	854.6	2174.3	2523.2	2644.5	2765.9	2958.0	3028.7	3044.0
62.5°	202.3	242.7	475.3	718.0	1982.1	2320.9	2442.2	2553.4	2715.3	2765.9	2786.1
65°	192.1	232.6	429.8	616.9	1784.9	2108.5	2229.8	2326.0	2457.4	2507.9	2518.1
67.5°	182.1	222.5	394.4	531.0	1587.7	1896.2	1987.1	2078.2	2179.3	2229.8	2234.9
70°	166.8	212.3	364.0	470.2	1385.4	1653.5	1729.3	1825.4	1906.2	1931.5	1946.7
72.5°	156.8	197.2	343.8	424.7	1178.2	1420.9	1491.6	1547.3	1618.0	1643.3	1643.3
75°	141.5	177.0	323.6	379.3	965.7	1162.9	1223.7	1279.3	1334.8	1345.0	1329.9
77.5°	126.4	156.8	278.1	318.5	753.4	920.3	970.8	1001.2	1046.7	1056.8	1061.8
80°	106.2	136.6	217.4	247.8	546.1	677.6	712.9	738.2	778.7	778.7	788.8
82.5°	80.9	106.2	156.8	177.0	369.1	465.2	495.5	510.6	535.9	535.9	535.9
85°	50.6	65.7	101.1	116.3	222.5	283.2	303.4	308.5	328.7	333.8	333.8
87.5°	25.3	35.4	65.7	70.8	116.3	146.6	146.6	156.8	156.8	151.7	146.6
90°	12.4	22.4	32.3	34.8	54.7	81.2	94.4	84.0	62.9	47.2	47.2
92.5°	49.7	134.2	218.7	239.8	337.2	467.0	532.0	466.2	334.8	236.2	226.8
95°	119.3	274.0	428.7	467.3	829.8	1313.1	1554.8	1387.4	1052.7	801.6	773.1
97.5°	206.3	342.7	479.2	513.3	1117.7	1923.6	2326.6	2220.8	2009.2	1850.6	1796.5
100°	273.4	397.1	520.8	551.8	1222.5	2116.8	2564.0	2571.8	2587.2	2598.8	2534.3
102.5°	330.6	446.0	561.4	590.3	1270.6	2177.7	2631.1	2765.9	3035.4	3237.6	3182.3
105°	427.6	525.3	623.1	647.5	1306.3	2184.5	2623.7	2925.8	3530.1	3983.3	3953.6
107.5°	527.0	618.1	709.3	732.1	1312.8	2087.2	2474.5	2896.0	3738.9	4371.0	4378.2
110°	594.1	676.4	758.7	779.3	1302.9	2001.1	2350.2	2821.4	3763.7	4470.4	4501.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	659.9	738.4	816.8	836.4	1303.4	1925.9	2237.1	2719.4	3683.8	4407.1	4454.6
115°	759.4	831.8	904.1	922.2	1315.3	1839.5	2101.7	2566.2	3495.3	4192.1	4257.9
117.5°	857.6	923.3	989.0	1005.5	1339.8	1785.5	2008.4	2427.7	3266.2	3895.1	3968.1
120°	914.7	976.6	1038.5	1054.0	1359.7	1767.4	1971.2	2354.2	3120.4	3695.0	3766.0
122.5°	970.7	1033.2	1095.5	1111.1	1388.3	1757.8	1942.6	2287.5	2977.4	3494.9	3564.9
125°	1056.5	1113.3	1170.2	1184.4	1426.8	1750.0	1911.5	2204.5	2790.6	3230.1	3294.6
127.5°	1126.0	1183.4	1240.9	1255.3	1465.3	1745.4	1885.4	2137.0	2640.2	3017.6	3072.0
130°	1163.3	1225.2	1287.0	1302.5	1493.5	1748.2	1875.5	2099.5	2547.5	2883.4	2933.7
132.5°	1201.9	1263.7	1325.6	1341.0	1516.2	1749.9	1866.7	2067.2	2468.3	2769.1	2814.1
135°	1259.0	1315.3	1371.7	1385.7	1541.1	1748.3	1851.9	2019.8	2355.5	2607.4	2646.3
137.5°	1317.4	1373.2	1429.0	1442.9	1578.4	1759.0	1849.4	1991.3	2275.3	2488.2	2520.0
140°	1365.9	1417.3	1468.6	1481.5	1601.2	1760.8	1840.6	1963.2	2208.5	2392.5	2422.2
142.5°	1403.2	1450.7	1498.2	1510.0	1620.2	1767.1	1840.6	1948.4	2163.8	2325.4	2350.9
145°	1460.3	1501.8	1543.2	1553.6	1645.1	1767.2	1828.3	1916.3	2092.5	2224.7	2244.0
147.5°	1517.5	1557.8	1598.2	1608.2	1681.5	1779.4	1828.3	1897.6	2036.2	2140.2	2156.2
150°	1554.8	1591.2	1627.7	1636.8	1700.7	1785.7	1828.3	1886.8	2003.9	2091.7	2104.6
152.5°	1593.3	1620.9	1648.6	1655.5	1713.0	1789.8	1828.3	1878.3	1978.2	2053.2	2062.9
155°	1650.5	1670.9	1691.4	1696.5	1740.4	1799.0	1828.3	1868.0	1947.5	2007.1	2013.6
157.5°	1692.7	1712.6	1732.5	1737.5	1767.8	1808.1	1828.3	1859.1	1921.0	1967.4	1972.0
160°	1721.3	1736.8	1752.3	1756.1	1780.2	1812.2	1828.3	1854.8	1907.7	1947.5	1950.1
162.5°	1749.9	1761.4	1773.1	1776.0	1793.4	1816.6	1828.3	1850.6	1895.3	1928.9	1931.3
165°	1780.9	1791.4	1802.0	1804.6	1812.4	1823.0	1828.3	1844.3	1876.3	1900.3	1902.9
167.5°	1809.5	1814.5	1819.5	1820.8	1827.4	1836.2	1840.6	1851.2	1872.2	1887.9	1889.0
170°	1828.3	1833.2	1838.2	1839.4	1839.8	1840.3	1840.6	1851.2	1872.2	1887.9	1887.9
172.5°	1838.1	1839.2	1840.3	1840.6	1840.6	1840.6	1840.6	1848.9	1865.5	1878.0	1877.0
175°	1851.9	1851.9	1851.9	1851.9	1848.1	1843.1	1840.6	1845.9	1856.3	1864.2	1864.2
177.5°	1851.9	1851.9	1851.9	1851.9	1849.0	1845.1	1843.1	1847.3	1855.5	1861.7	1860.6
180°	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1572.6	1572.6
2.5°	1678.8	1668.6
5°	2159.1	2169.2
7.5°	2907.4	2902.3
10°	3615.3	3660.8
12.5°	4131.1	4141.2
15°	4444.6	4464.8
17.5°	4566.0	4570.9
20°	4570.9	4560.9
22.5°	4515.4	4505.2
25°	4449.6	4444.6
27.5°	4389.0	4394.1
30°	4363.7	4378.8
32.5°	4363.7	4389.0
35°	4373.7	4399.0
37.5°	4368.8	4399.0
40°	4348.5	4383.9
42.5°	4292.9	4318.2
45°	4206.9	4237.3
47.5°	4095.7	4115.9
50°	3954.1	3974.3
52.5°	3777.1	3782.2
55°	3564.8	3585.0
57.5°	3337.2	3342.3
60°	3084.4	3099.6
62.5°	2816.4	2816.4
65°	2533.2	2543.4
67.5°	2240.0	2265.3
70°	1941.7	1946.7
72.5°	1648.4	1648.4
75°	1345.0	1350.1
77.5°	1056.8	1056.8
80°	783.8	788.8
82.5°	541.0	551.2
85°	338.7	338.7
87.5°	156.8	141.5
90°	47.2	47.2
92.5°	189.1	151.6
95°	659.4	545.6
97.5°	1580.0	1363.4
100°	2276.4	2018.4
102.5°	2961.4	2740.5
105°	3834.8	3716.1
107.5°	4407.0	4435.7
110°	4625.1	4748.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4644.6	4834.7
115°	4521.4	4784.9
117.5°	4260.3	4552.5
120°	4049.8	4333.8
122.5°	3844.9	4124.9
125°	3552.5	3810.5
127.5°	3289.7	3507.3
130°	3134.7	3335.8
132.5°	2994.2	3174.3
135°	2801.4	2956.7
137.5°	2647.0	2774.1
140°	2541.0	2659.7
142.5°	2453.0	2555.2
145°	2321.4	2398.7
147.5°	2220.3	2284.3
150°	2156.6	2208.5
152.5°	2102.2	2141.4
155°	2039.6	2065.6
157.5°	1990.2	2008.4
160°	1960.6	1971.2
162.5°	1941.3	1951.3
165°	1913.4	1923.9
167.5°	1893.4	1897.8
170°	1887.9	1887.9
172.5°	1873.1	1869.2
175°	1864.2	1864.2
177.5°	1856.2	1851.9
180°	1851.9	1851.9



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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	6.54	7.44	7.48	8.41	9.67	19.73	20.63	20.68	21.60	22.86
	3H	7.25	8.06	8.20	9.04	10.32	21.58	22.39	22.54	23.37	24.65
	4H	7.55	8.32	8.52	9.30	10.59	22.23	23.00	23.20	23.98	25.27
	6H	7.80	8.51	8.78	9.50	10.80	22.67	23.38	23.65	24.36	25.67
	8H	7.87	8.55	8.86	9.55	10.85	22.79	23.47	23.78	24.47	25.77
	12H	7.89	8.53	8.88	9.53	10.86	22.86	23.51	23.86	24.50	25.83
4H	2H	13.77	14.54	14.74	15.52	16.81	20.01	20.78	20.99	21.76	23.05
	3H	15.34	15.98	16.32	16.99	18.30	22.06	22.71	23.05	23.72	25.03
	4H	15.43	16.02	16.43	17.03	18.36	22.84	23.43	23.83	24.43	25.76
	6H	15.45	15.96	16.45	16.98	18.31	23.38	23.89	24.39	24.92	26.25
	8H	15.43	15.90	16.43	16.92	18.27	23.55	24.02	24.56	25.04	26.39
	12H	15.38	15.81	16.41	16.85	18.20	23.65	24.08	24.68	25.11	26.46
8H	4H	16.89	17.36	17.90	18.38	19.73	22.90	23.38	23.91	24.40	25.74
	6H	17.13	17.52	18.16	18.59	19.93	23.54	23.93	24.57	24.99	26.33
	8H	17.15	17.50	18.19	18.54	19.90	23.76	24.11	24.80	25.15	26.51
	12H	17.12	17.43	18.17	18.47	19.87	23.91	24.21	24.96	25.26	26.66
12H	4H	17.03	17.46	18.06	18.50	19.85	22.85	23.29	23.88	24.32	25.67
	6H	17.39	17.74	18.43	18.79	20.15	23.52	23.87	24.56	24.91	26.28
	8H	17.46	17.77	18.51	18.81	20.21	23.75	24.06	24.80	25.10	26.51