

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: P937778

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937778
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-W2A-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

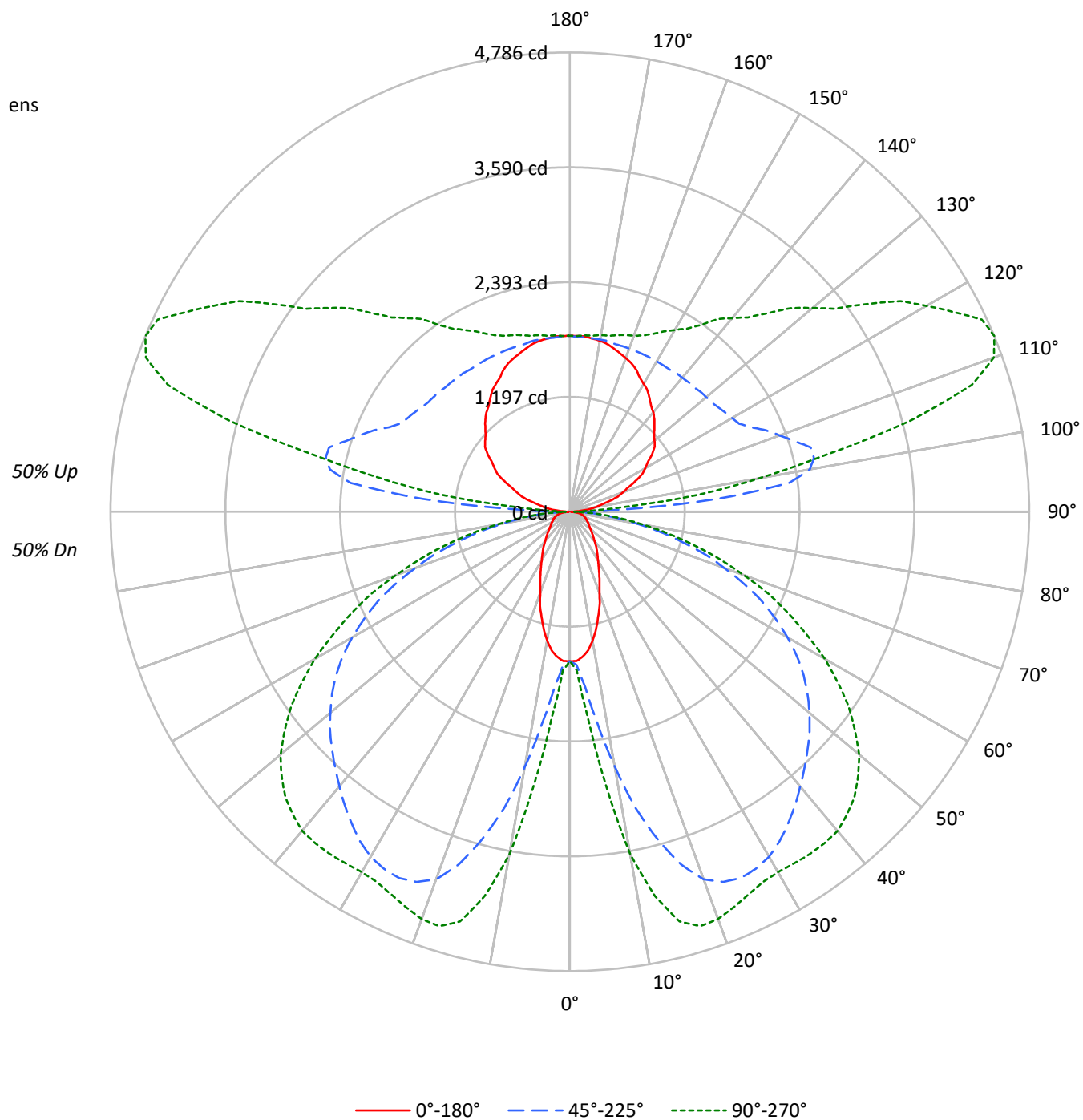
Lumens per Lamp: N/A
Luminaire Lumens: 23934.2 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P937778

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-12-3000K

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
RW	70	50	30	10	70	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
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4815	4815	4815
5°	4706	5567	6472
10°	4270	8116	10730
15°	3631	10607	12956
20°	2957	12294	13205
25°	2467	12869	12936
30°	2082	12953	12912
35°	1841	12741	13246
40°	1605	12466	13591
45°	1455	12264	13644
50°	1336	12084	13418
55°	1281	11819	12823
60°	1312	11305	11884
65°	1368	10522	10594
70°	1461	9182	8949
75°	1624	7493	6984
80°	1788	5203	4706
85°	1623	2765	2408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13644 cd/sqm

TEST NUMBER: P937778

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-12-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.4	0.8
10°-20°	892.5	3.7
20°-30°	1561.1	6.5
30°-40°	2009.6	8.4
40°-50°	2244.7	9.4
50°-60°	2149.9	9.0
60°-70°	1703.8	7.1
70°-80°	1001.9	4.2
80°-90°	285.3	1.2
90°-100°	893.6	3.7
100°-110°	2349.4	9.8
110°-120°	2436.0	10.2
120°-130°	1954.0	8.2
130°-140°	1533.2	6.4
140°-150°	1176.8	4.9
150°-160°	847.5	3.5
160°-170°	518.5	2.2
170°-180°	175.2	0.7
0°-30°	2655.0	11.1
0°-40°	4664.6	19.5
0°-60°	9059.1	37.8
0°-90°	12050.0	50.3
90°-120°	5679.0	23.7
90°-150°	10343.0	43.2
90°-180°	11884.0	49.7
0°-180°	23934.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1517	1627	1832	2072	2147	140
15°	1136	2097	3534	4285	4420	316
25°	726	2378	4210	4395	4400	334
35°	490	2272	3964	4190	4355	306
45°	335	1812	3504	4014	4195	259
55°	240	1151	2973	3454	3549	219
65°	190	611	2208	2483	2518	189
75°	140	376	1211	1332	1336	147
85°	50	115	300	330	335	53
90°	12	34	94	47	47	14
95°	118	463	1539	794	540	131
105°	423	641	2597	3943	3679	449
115°	752	913	2081	4150	4737	742
125°	1046	1173	1892	3198	3772	929
135°	1246	1372	1833	2581	2927	964
145°	1446	1538	1810	2202	2375	906
155°	1634	1680	1810	1987	2045	751
165°	1763	1786	1810	1881	1905	498
175°	1833	1833	1822	1846	1846	174
180°	1833	1833	1833	1833	1833	

TEST NUMBER: P937778

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-12-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8
2.5°	1556.8	1556.8	1566.8	1571.8	1581.7	1586.8	1596.8	1606.8	1636.9	1641.9	1651.8
5°	1516.7	1536.7	1601.8	1626.8	1696.9	1792.1	1832.1	1897.2	2032.2	2072.4	2097.3
7.5°	1456.6	1501.7	1661.9	1701.9	1877.1	2127.4	2232.5	2372.7	2588.0	2693.1	2778.2
10°	1361.6	1456.6	1742.0	1837.0	2122.4	2502.8	2698.0	2893.2	3218.6	3363.7	3418.9
12.5°	1256.5	1411.6	1827.1	1957.2	2367.7	2923.3	3158.6	3373.8	3744.2	3939.5	3969.4
15°	1136.3	1346.5	1907.1	2097.3	2628.0	3273.7	3533.9	3799.3	4144.7	4284.9	4319.9
17.5°	1031.2	1296.5	1982.3	2182.4	2828.1	3589.0	3854.4	4074.5	4354.9	4450.0	4475.1
20°	901.0	1216.3	2032.2	2292.5	3038.5	3819.3	4074.5	4244.7	4435.0	4495.1	4505.0
22.5°	805.9	1131.2	2062.3	2332.6	3178.6	3959.5	4174.7	4309.8	4440.0	4460.0	4465.0
25°	725.8	1036.2	2057.3	2377.6	3298.7	4044.6	4209.7	4309.8	4384.9	4394.9	4394.9
27.5°	650.8	931.1	2037.3	2387.7	3388.8	4064.6	4194.7	4264.7	4299.8	4319.9	4319.9
30°	585.7	830.9	1987.2	2367.7	3428.8	4044.6	4149.7	4184.7	4219.8	4249.8	4264.7
32.5°	535.6	735.9	1912.1	2327.7	3433.8	3994.5	4069.6	4089.6	4139.6	4209.7	4234.8
35°	490.5	640.7	1827.1	2272.5	3403.9	3914.4	3964.4	3984.5	4084.6	4189.7	4224.7
37.5°	445.5	570.6	1716.9	2177.5	3358.8	3819.3	3854.4	3889.4	4044.6	4169.7	4209.7
40°	400.4	510.6	1586.8	2072.4	3288.7	3704.2	3734.2	3789.3	3994.5	4139.6	4179.7
42.5°	365.4	460.6	1446.7	1962.2	3198.6	3574.1	3619.1	3699.2	3934.4	4089.6	4134.7
45°	335.3	410.5	1296.5	1812.1	3083.4	3438.9	3503.9	3614.1	3864.3	4014.5	4054.5
47.5°	305.4	375.5	1141.3	1656.9	2958.3	3303.7	3388.8	3513.9	3769.3	3914.4	3949.4
50°	280.3	340.4	986.1	1491.7	2823.2	3158.6	3258.6	3388.8	3649.1	3784.3	3829.3
52.5°	260.3	310.4	841.0	1326.5	2668.0	3008.4	3123.5	3258.6	3503.9	3634.1	3664.1
55°	240.3	285.3	715.8	1151.3	2507.8	2848.2	2973.4	3103.5	3343.7	3453.9	3473.9
57.5°	230.2	265.3	610.7	986.1	2337.6	2668.0	2808.1	2928.3	3153.5	3238.6	3258.6
60°	215.2	250.2	530.6	846.0	2152.4	2497.8	2617.9	2738.1	2928.3	2998.3	3013.4
62.5°	200.3	240.3	470.5	710.8	1962.2	2297.6	2417.7	2527.8	2688.0	2738.1	2758.1
65°	190.2	230.2	425.5	610.7	1767.0	2087.4	2207.5	2302.6	2432.8	2482.7	2492.8
67.5°	180.2	220.3	390.5	525.6	1571.8	1877.1	1967.2	2057.3	2157.5	2207.5	2212.5
70°	165.2	210.2	360.4	465.5	1371.5	1636.9	1711.9	1807.0	1887.1	1912.1	1927.1
72.5°	155.2	195.2	340.4	420.4	1166.3	1406.6	1476.6	1531.8	1601.8	1626.8	1626.8
75°	140.1	175.2	320.4	375.5	956.0	1151.3	1211.4	1266.4	1321.4	1331.5	1316.5
77.5°	125.1	155.2	275.3	315.3	745.8	911.1	961.1	991.1	1036.2	1046.1	1051.2
80°	105.1	135.2	215.2	245.3	540.6	670.8	705.8	730.8	770.9	770.9	780.9
82.5°	80.1	105.1	155.2	175.2	365.4	460.6	490.5	505.5	530.6	530.6	530.6
85°	50.1	65.1	100.1	115.2	220.3	280.3	300.3	305.4	325.4	330.4	330.4
87.5°	25.0	35.0	65.1	70.1	115.2	145.1	145.1	155.2	155.2	150.2	145.1
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.9	462.3	526.6	461.5	331.4	233.8	224.5
95°	118.1	271.2	424.4	462.6	821.4	1299.9	1539.1	1373.5	1042.1	793.5	765.3
97.5°	204.2	339.3	474.4	508.2	1106.5	1904.3	2303.2	2198.5	1989.1	1832.0	1778.4
100°	270.7	393.1	515.6	546.2	1210.2	2095.5	2538.3	2546.0	2561.2	2572.7	2508.9
102.5°	327.3	441.5	555.8	584.4	1257.8	2155.8	2604.7	2738.1	3004.9	3205.1	3150.4
105°	423.3	520.0	616.8	641.0	1293.1	2162.6	2597.3	2896.5	3494.7	3943.3	3913.9
107.5°	521.7	611.9	702.1	724.7	1299.6	2066.3	2449.6	2866.9	3701.3	4327.2	4334.3
110°	588.1	669.6	751.0	771.4	1289.8	1981.0	2326.6	2793.0	3725.9	4425.6	4456.2

TEST NUMBER: P937778

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-12-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.3	731.0	808.6	828.0	1290.3	1906.5	2214.7	2692.1	3646.8	4362.9	4409.9
115°	751.7	823.4	895.0	912.9	1302.1	1821.0	2080.6	2540.4	3460.2	4150.0	4215.2
117.5°	848.9	914.0	979.1	995.4	1326.4	1767.6	1988.3	2403.3	3233.4	3856.0	3928.2
120°	905.5	966.8	1028.1	1043.4	1346.1	1749.7	1951.4	2330.6	3089.0	3657.9	3728.2
122.5°	961.0	1022.8	1084.5	1100.0	1374.4	1740.2	1923.1	2264.5	2947.5	3459.8	3529.1
125°	1045.9	1102.2	1158.5	1172.6	1412.4	1732.4	1892.3	2182.4	2762.6	3197.7	3261.5
127.5°	1114.7	1171.6	1228.5	1242.7	1450.6	1727.9	1866.5	2115.6	2613.7	2987.3	3041.1
130°	1151.6	1212.9	1274.1	1289.4	1478.5	1730.6	1856.6	2078.4	2521.9	2854.5	2904.3
132.5°	1189.8	1251.0	1312.3	1327.6	1501.0	1732.3	1848.0	2046.4	2443.5	2741.3	2785.8
135°	1246.4	1302.1	1357.9	1371.8	1525.6	1730.7	1833.3	1999.5	2331.9	2581.2	2619.7
137.5°	1304.2	1359.4	1414.6	1428.4	1562.5	1741.4	1830.8	1971.3	2252.4	2463.2	2494.7
140°	1352.2	1403.1	1453.9	1466.6	1585.1	1743.1	1822.1	1943.5	2186.4	2368.5	2397.9
142.5°	1389.1	1436.1	1483.1	1494.9	1603.9	1749.4	1822.1	1928.8	2142.1	2302.0	2327.3
145°	1445.7	1486.7	1527.7	1538.0	1628.6	1749.5	1809.9	1897.1	2071.5	2202.3	2221.5
147.5°	1502.3	1542.2	1582.1	1592.1	1664.7	1761.5	1809.9	1878.5	2015.8	2118.7	2134.6
150°	1539.1	1575.2	1611.3	1620.4	1683.6	1767.8	1809.9	1867.9	1983.7	2070.7	2083.5
152.5°	1577.3	1604.6	1632.0	1638.8	1695.8	1771.8	1809.9	1859.4	1958.3	2032.5	2042.2
155°	1633.9	1654.1	1674.4	1679.5	1722.9	1780.9	1809.9	1849.2	1927.9	1987.0	1993.4
157.5°	1675.7	1695.4	1715.1	1720.1	1750.1	1790.0	1809.9	1840.5	1901.7	1947.6	1952.2
160°	1704.0	1719.4	1734.7	1738.5	1762.3	1794.0	1809.9	1836.1	1888.6	1927.9	1930.5
162.5°	1732.3	1743.7	1755.3	1758.1	1775.4	1798.4	1809.9	1832.0	1876.3	1909.5	1912.0
165°	1763.1	1773.4	1783.9	1786.4	1794.2	1804.7	1809.9	1825.8	1857.4	1881.2	1883.8
167.5°	1791.4	1796.3	1801.2	1802.5	1809.0	1817.8	1822.1	1832.6	1853.4	1869.0	1870.0
170°	1809.9	1814.8	1819.8	1820.9	1821.3	1821.8	1822.1	1832.6	1853.4	1869.0	1869.0
172.5°	1819.7	1820.7	1821.8	1822.1	1822.1	1822.1	1822.1	1830.3	1846.8	1859.1	1858.1
175°	1833.3	1833.3	1833.3	1833.3	1829.5	1824.6	1822.1	1827.4	1837.7	1845.5	1845.5
177.5°	1833.3	1833.3	1833.3	1833.3	1830.4	1826.6	1824.6	1828.7	1836.9	1843.0	1841.9
180°	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1556.8	1556.8
2.5°	1661.9	1651.8
5°	2137.5	2147.4
7.5°	2878.2	2873.2
10°	3579.0	3624.0
12.5°	4089.6	4099.6
15°	4399.9	4419.9
17.5°	4520.1	4525.0
20°	4525.0	4515.1
22.5°	4470.0	4460.0
25°	4405.0	4399.9
27.5°	4344.9	4349.9
30°	4319.9	4334.9
32.5°	4319.9	4344.9
35°	4329.8	4354.9
37.5°	4324.9	4354.9
40°	4304.9	4339.9
42.5°	4249.8	4274.8
45°	4164.7	4194.7
47.5°	4054.5	4074.5
50°	3914.4	3934.4
52.5°	3739.2	3744.2
55°	3529.0	3549.0
57.5°	3303.7	3308.7
60°	3053.4	3068.4
62.5°	2788.1	2788.1
65°	2507.8	2517.8
67.5°	2217.5	2242.6
70°	1922.2	1927.1
72.5°	1631.8	1631.8
75°	1331.5	1336.5
77.5°	1046.1	1046.1
80°	775.9	780.9
82.5°	535.6	545.7
85°	335.3	335.3
87.5°	155.2	140.1
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.7	540.1
97.5°	1564.1	1349.7
100°	2253.5	1998.1
102.5°	2931.7	2713.0
105°	3796.3	3678.8
107.5°	4362.8	4391.2
110°	4578.7	4701.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4598.0	4786.1
115°	4476.0	4736.8
117.5°	4217.5	4506.8
120°	4009.2	4290.3
122.5°	3806.3	4083.5
125°	3516.9	3772.2
127.5°	3256.7	3472.1
130°	3103.2	3302.3
132.5°	2964.1	3142.4
135°	2773.3	2927.0
137.5°	2620.4	2746.2
140°	2515.5	2633.0
142.5°	2428.4	2529.6
145°	2298.1	2374.6
147.5°	2198.0	2261.4
150°	2135.0	2186.4
152.5°	2081.1	2119.9
155°	2019.1	2044.9
157.5°	1970.2	1988.3
160°	1940.9	1951.4
162.5°	1921.8	1931.7
165°	1894.2	1904.6
167.5°	1874.4	1878.7
170°	1869.0	1869.0
172.5°	1854.3	1850.4
175°	1845.5	1845.5
177.5°	1837.6	1833.3
180°	1833.3	1833.3

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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	6.50	7.41	7.45	8.37	9.64	19.70	20.60	20.64	21.57	22.83
	3H	7.21	8.02	8.17	9.00	10.29	21.54	22.35	22.50	23.33	24.62
	4H	7.51	8.28	8.48	9.26	10.56	22.19	22.96	23.16	23.94	25.24
	6H	7.76	8.47	8.75	9.46	10.77	22.63	23.34	23.61	24.33	25.63
	8H	7.83	8.51	8.82	9.51	10.82	22.76	23.43	23.74	24.44	25.74
	12H	7.85	8.50	8.85	9.49	10.82	22.83	23.47	23.82	24.47	25.80
4H	2H	13.73	14.50	14.71	15.48	16.78	19.97	20.74	20.95	21.72	23.02
	3H	15.30	15.95	16.29	16.96	18.27	22.03	22.67	23.02	23.68	24.99
	4H	15.40	15.99	16.39	16.99	18.32	22.80	23.39	23.80	24.39	25.73
	6H	15.41	15.92	16.42	16.95	18.28	23.35	23.86	24.35	24.88	26.21
	8H	15.39	15.87	16.40	16.89	18.23	23.51	23.99	24.52	25.01	26.35
	12H	15.35	15.78	16.38	16.81	18.16	23.61	24.04	24.64	25.08	26.43
8H	4H	16.85	17.33	17.86	18.35	19.69	22.86	23.34	23.87	24.36	25.71
	6H	17.09	17.49	18.13	18.55	19.89	23.50	23.90	24.53	24.96	26.30
	8H	17.11	17.46	18.16	18.51	19.87	23.72	24.07	24.77	25.12	26.48
	12H	17.08	17.39	18.13	18.43	19.84	23.87	24.18	24.92	25.22	26.63
12H	4H	17.00	17.43	18.03	18.46	19.81	22.82	23.25	23.85	24.29	25.64
	6H	17.36	17.70	18.40	18.75	20.11	23.48	23.83	24.53	24.88	26.24
	8H	17.43	17.73	18.47	18.78	20.18	23.72	24.03	24.77	25.07	26.47