

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: P937730

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

**Test Information**

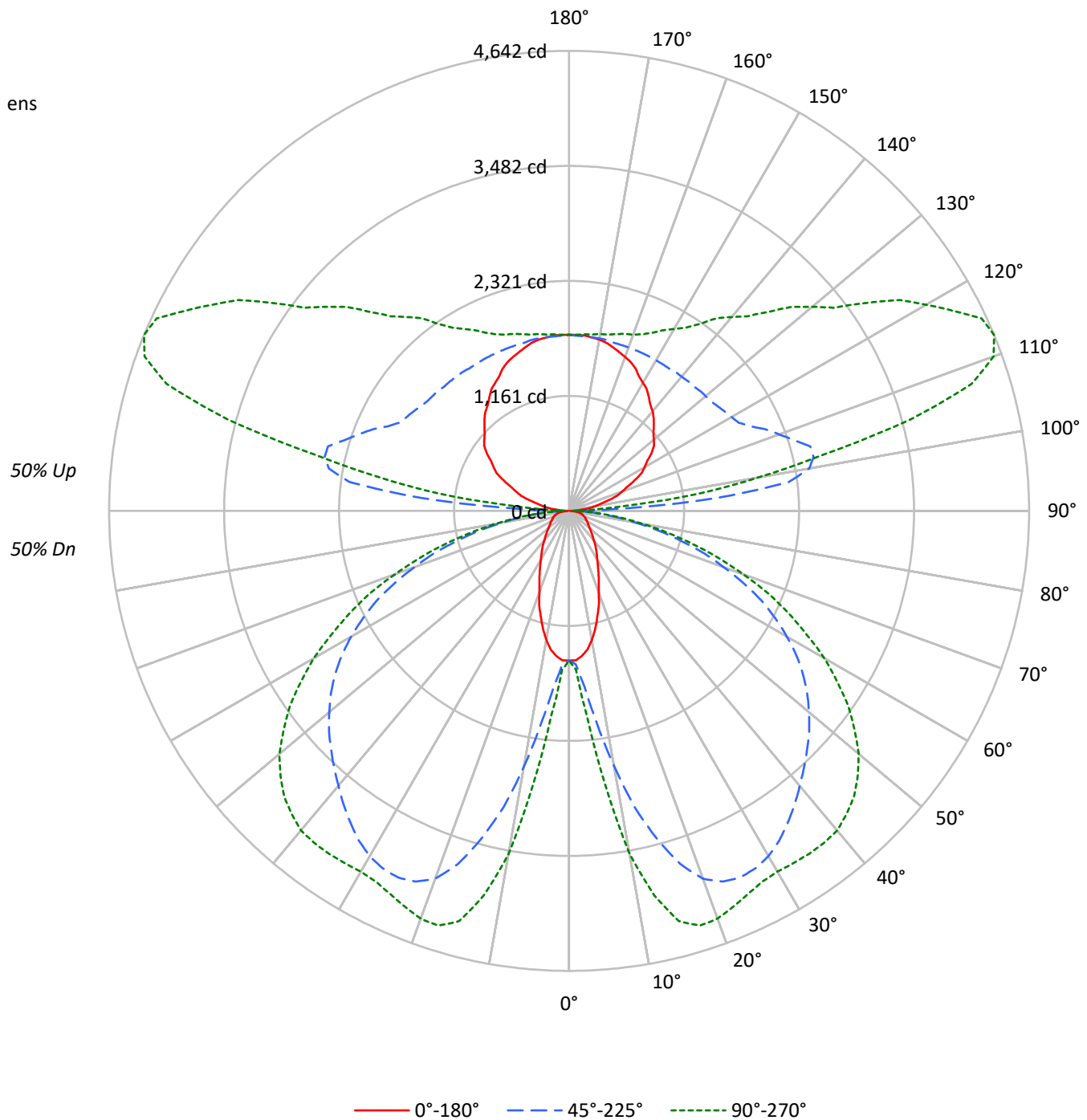
Test Method: LM-79-2019  
Report Number: P937730  
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23210.6 lumens  
Efficiency: N/A  
Efficacy: 112.5 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<sub>in</sub>): 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	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	47	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	38	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	32	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	27	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	23	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	20	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	17	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	15	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	14	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	12	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4670	4670	4670
5°	4563	5399	6277
10°	4141	7871	10406
15°	3521	10286	12565
20°	2867	11923	12805
25°	2393	12480	12545
30°	2019	12562	12521
35°	1786	12356	12845
40°	1557	12089	13180
45°	1411	11894	13232
50°	1295	11719	13013
55°	1242	11462	12436
60°	1273	10963	11525
65°	1326	10203	10273
70°	1416	8904	8679
75°	1575	7267	6773
80°	1733	5045	4564
85°	1575	2682	2336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13232 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.3	0.8
10°-20°	865.5	3.7
20°-30°	1513.9	6.5
30°-40°	1948.8	8.4
40°-50°	2176.8	9.4
50°-60°	2084.9	9.0
60°-70°	1652.3	7.1
70°-80°	971.6	4.2
80°-90°	276.7	1.2
90°-100°	866.6	3.7
100°-110°	2278.3	9.8
110°-120°	2362.4	10.2
120°-130°	1894.9	8.2
130°-140°	1486.8	6.4
140°-150°	1141.2	4.9
150°-160°	821.9	3.5
160°-170°	502.9	2.2
170°-180°	169.9	0.7
0°-30°	2574.7	11.1
0°-40°	4523.5	19.5
0°-60°	8785.2	37.8
0°-90°	11685.7	50.3
90°-120°	5507.3	23.7
90°-150°	10030.3	43.2
90°-180°	11525.0	49.7
0°-180°	23210.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1471	1578	1777	2010	2082	136
15°	1102	2034	3427	4155	4286	307
25°	704	2306	4082	4262	4267	324
35°	476	2204	3845	4063	4223	297
45°	325	1757	3398	3893	4068	252
55°	233	1116	2884	3349	3442	212
65°	184	592	2141	2408	2442	183
75°	136	364	1175	1291	1296	142
85°	49	112	291	320	325	51
90°	12	33	91	45	45	13
95°	115	449	1493	770	524	127
105°	410	622	2519	3824	3568	435
115°	729	885	2018	4024	4594	720
125°	1014	1137	1835	3101	3658	900
135°	1209	1330	1778	2503	2839	935
145°	1402	1492	1755	2136	2303	878
155°	1584	1629	1755	1927	1983	728
165°	1710	1732	1755	1824	1847	483
175°	1778	1778	1767	1790	1790	169
180°	1778	1778	1778	1778	1778	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7
2.5°	1509.7	1509.7	1519.4	1524.3	1533.9	1538.8	1548.6	1558.2	1587.4	1592.3	1601.9
5°	1470.8	1490.2	1553.3	1577.6	1645.6	1737.9	1776.7	1839.8	1970.8	2009.7	2033.9
7.5°	1412.6	1456.3	1611.7	1650.5	1820.4	2063.1	2165.0	2301.0	2509.7	2611.6	2694.2
10°	1320.4	1412.6	1689.3	1781.5	2058.2	2427.1	2616.4	2805.8	3121.3	3262.1	3315.5
12.5°	1218.5	1368.9	1771.8	1898.0	2296.1	2834.9	3063.1	3271.8	3631.0	3820.4	3849.4
15°	1101.9	1305.8	1849.5	2033.9	2548.5	3174.8	3427.1	3684.4	4019.4	4155.3	4189.3
17.5°	1000.0	1257.3	1922.3	2116.4	2742.6	3480.5	3737.9	3951.4	4223.2	4315.5	4339.8
20°	873.8	1179.6	1970.8	2223.2	2946.6	3703.8	3951.4	4116.4	4301.0	4359.2	4368.8
22.5°	781.5	1097.0	2000.0	2262.1	3082.5	3839.8	4048.5	4179.5	4305.7	4325.1	4330.0
25°	703.9	1004.9	1995.1	2305.8	3198.9	3922.3	4082.5	4179.5	4252.4	4262.0	4262.0
27.5°	631.1	902.9	1975.7	2315.5	3286.3	3941.7	4067.9	4135.8	4169.9	4189.3	4189.3
30°	568.0	805.8	1927.1	2296.1	3325.2	3922.3	4024.2	4058.2	4092.2	4121.3	4135.8
32.5°	519.4	713.6	1854.3	2257.3	3330.0	3873.7	3946.6	3966.0	4014.5	4082.5	4106.8
35°	475.7	621.3	1771.8	2203.8	3301.0	3796.1	3844.6	3864.1	3961.1	4063.1	4097.0
37.5°	432.0	553.3	1665.0	2111.7	3257.3	3703.8	3737.9	3771.8	3922.3	4043.6	4082.5
40°	388.3	495.1	1538.8	2009.7	3189.3	3592.2	3621.3	3674.7	3873.7	4014.5	4053.3
42.5°	354.4	446.6	1402.9	1902.9	3101.9	3466.0	3509.7	3587.3	3815.5	3966.0	4009.7
45°	325.2	398.1	1257.3	1757.3	2990.2	3334.9	3398.0	3504.8	3747.5	3893.1	3932.0
47.5°	296.1	364.1	1106.8	1606.8	2868.9	3203.8	3286.3	3407.7	3655.3	3796.1	3830.0
50°	271.8	330.1	956.3	1446.6	2737.9	3063.1	3160.1	3286.3	3538.8	3669.9	3713.6
52.5°	252.4	301.0	815.5	1286.4	2587.4	2917.4	3029.1	3160.1	3398.0	3524.2	3553.3
55°	233.0	276.7	694.2	1116.5	2432.0	2762.1	2883.5	3009.7	3242.6	3349.4	3368.9
57.5°	223.3	257.3	592.3	956.3	2266.9	2587.4	2723.2	2839.8	3058.2	3140.7	3160.1
60°	208.7	242.7	514.5	820.4	2087.4	2422.3	2538.8	2655.3	2839.8	2907.7	2922.3
62.5°	194.2	233.0	456.3	689.3	1902.9	2228.1	2344.6	2451.4	2606.8	2655.3	2674.8
65°	184.4	223.3	412.6	592.3	1713.6	2024.3	2140.7	2233.0	2359.2	2407.7	2417.4
67.5°	174.8	213.6	378.7	509.7	1524.3	1820.4	1907.7	1995.1	2092.2	2140.7	2145.6
70°	160.2	203.9	349.5	451.4	1330.1	1587.4	1660.1	1752.4	1830.1	1854.3	1868.9
72.5°	150.5	189.3	330.1	407.7	1131.1	1364.1	1432.0	1485.4	1553.3	1577.6	1577.6
75°	135.9	169.9	310.7	364.1	927.1	1116.5	1174.8	1228.1	1281.5	1291.2	1276.7
77.5°	121.3	150.5	267.0	305.8	723.3	883.5	932.0	961.2	1004.9	1014.5	1019.4
80°	101.9	131.1	208.7	237.9	524.3	650.5	684.4	708.7	747.6	747.6	757.3
82.5°	77.6	101.9	150.5	169.9	354.4	446.6	475.7	490.2	514.5	514.5	514.5
85°	48.6	63.1	97.1	111.7	213.6	271.8	291.3	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.8	140.8	150.5	150.5	145.6	140.8
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	210.0	230.3	323.8	448.4	510.7	447.6	321.4	226.7	217.7
95°	114.6	263.0	411.5	448.6	796.6	1260.6	1492.6	1332.0	1010.6	769.5	742.2
97.5°	198.0	329.0	460.0	492.8	1073.0	1846.7	2233.6	2132.0	1928.9	1776.6	1724.7
100°	262.5	381.2	500.0	529.7	1173.6	2032.2	2461.5	2469.0	2483.8	2494.9	2433.0
102.5°	317.4	428.2	539.0	566.7	1219.8	2090.6	2526.0	2655.3	2914.1	3108.2	3055.1
105°	410.5	504.3	598.2	621.6	1254.0	2097.2	2518.8	2808.9	3389.0	3824.1	3795.6
107.5°	505.9	593.4	680.9	702.8	1260.4	2003.8	2375.6	2780.2	3589.5	4196.3	4203.2
110°	570.4	649.4	728.3	748.1	1250.8	1921.1	2256.2	2708.6	3613.3	4291.8	4321.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.6	708.9	784.2	803.0	1251.3	1848.9	2147.7	2610.7	3536.6	4231.0	4276.6
115°	729.0	798.5	867.9	885.3	1262.7	1766.0	2017.7	2463.6	3355.6	4024.5	4087.7
117.5°	823.3	886.4	949.5	965.3	1286.3	1714.2	1928.2	2330.6	3135.6	3739.4	3809.5
120°	878.2	937.5	997.0	1011.8	1305.4	1696.8	1892.4	2260.2	2995.7	3547.3	3615.5
122.5°	931.9	991.9	1051.7	1066.7	1332.8	1687.6	1865.0	2196.1	2858.4	3355.2	3422.4
125°	1014.2	1068.8	1123.4	1137.1	1369.7	1680.0	1835.1	2116.4	2679.1	3101.0	3162.9
127.5°	1081.0	1136.1	1191.3	1205.1	1406.8	1675.6	1810.1	2051.6	2534.7	2897.0	2949.2
130°	1116.8	1176.2	1235.6	1250.4	1433.8	1678.3	1800.5	2015.6	2445.7	2768.2	2816.5
132.5°	1153.8	1213.2	1272.6	1287.4	1455.6	1679.9	1792.1	1984.6	2369.6	2658.4	2701.6
135°	1208.7	1262.7	1316.9	1330.4	1479.5	1678.4	1777.8	1939.1	2261.4	2503.2	2540.5
137.5°	1264.8	1318.3	1371.9	1385.2	1515.3	1688.7	1775.5	1911.7	2184.3	2388.8	2419.3
140°	1311.3	1360.7	1409.9	1422.2	1537.2	1690.5	1767.0	1884.8	2120.3	2296.9	2325.4
142.5°	1347.1	1392.7	1438.3	1449.7	1555.4	1696.5	1767.0	1870.5	2077.3	2232.4	2256.9
145°	1402.0	1441.7	1481.5	1491.5	1579.3	1696.6	1755.2	1839.7	2008.9	2135.8	2154.3
147.5°	1456.9	1495.6	1534.3	1544.0	1614.3	1708.2	1755.2	1821.7	1954.8	2054.7	2070.1
150°	1492.6	1527.6	1562.6	1571.4	1632.7	1714.4	1755.2	1811.4	1923.8	2008.1	2020.5
152.5°	1529.6	1556.1	1582.7	1589.3	1644.6	1718.3	1755.2	1803.2	1899.1	1971.1	1980.5
155°	1584.5	1604.1	1623.8	1628.7	1670.9	1727.1	1755.2	1793.3	1869.6	1926.9	1933.1
157.5°	1625.1	1644.2	1663.3	1668.1	1697.1	1735.9	1755.2	1784.8	1844.2	1888.8	1893.2
160°	1652.5	1667.4	1682.2	1686.0	1709.0	1739.8	1755.2	1780.6	1831.5	1869.6	1872.1
162.5°	1679.9	1691.0	1702.2	1705.0	1721.7	1744.0	1755.2	1776.6	1819.5	1851.8	1854.2
165°	1709.8	1719.8	1729.9	1732.4	1740.0	1750.1	1755.2	1770.6	1801.3	1824.3	1826.8
167.5°	1737.2	1742.0	1746.8	1748.0	1754.3	1762.8	1767.0	1777.2	1797.4	1812.5	1813.5
170°	1755.2	1760.0	1764.7	1765.9	1766.3	1766.8	1767.0	1777.2	1797.4	1812.5	1812.5
172.5°	1764.7	1765.7	1766.8	1767.0	1767.0	1767.0	1767.0	1775.0	1790.9	1802.9	1801.9
175°	1777.8	1777.8	1777.8	1777.8	1774.2	1769.4	1767.0	1772.1	1782.2	1789.7	1789.7
177.5°	1777.8	1777.8	1777.8	1777.8	1775.1	1771.3	1769.4	1773.5	1781.4	1787.3	1786.3
180°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1509.7	1509.7
2.5°	1611.7	1601.9
5°	2072.8	2082.5
7.5°	2791.2	2786.3
10°	3470.8	3514.5
12.5°	3966.0	3975.7
15°	4266.9	4286.3
17.5°	4383.5	4388.3
20°	4388.3	4378.6
22.5°	4334.9	4325.1
25°	4271.8	4266.9
27.5°	4213.6	4218.4
30°	4189.3	4203.8
32.5°	4189.3	4213.6
35°	4198.9	4223.2
37.5°	4194.1	4223.2
40°	4174.7	4208.7
42.5°	4121.3	4145.6
45°	4038.8	4067.9
47.5°	3932.0	3951.4
50°	3796.1	3815.5
52.5°	3626.2	3631.0
55°	3422.3	3441.7
57.5°	3203.8	3208.7
60°	2961.1	2975.7
62.5°	2703.8	2703.8
65°	2432.0	2441.7
67.5°	2150.5	2174.8
70°	1864.1	1868.9
72.5°	1582.5	1582.5
75°	1291.2	1296.1
77.5°	1014.5	1014.5
80°	752.4	757.3
82.5°	519.4	529.2
85°	325.2	325.2
87.5°	150.5	135.9
90°	45.3	45.3
92.5°	181.6	145.5
95°	633.0	523.8
97.5°	1516.8	1308.9
100°	2185.4	1937.7
102.5°	2843.0	2631.0
105°	3681.5	3567.6
107.5°	4230.9	4258.4
110°	4440.3	4559.1





TEST NUMBER: P937730

CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-6500K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4459.0	4641.5
115°	4340.7	4593.6
117.5°	4090.0	4370.6
120°	3888.0	4160.6
122.5°	3691.2	3960.1
125°	3410.5	3658.2
127.5°	3158.2	3367.1
130°	3009.4	3202.5
132.5°	2874.5	3047.4
135°	2689.5	2838.6
137.5°	2541.2	2663.2
140°	2439.4	2553.4
142.5°	2355.0	2453.1
145°	2228.6	2302.8
147.5°	2131.5	2193.0
150°	2070.4	2120.3
152.5°	2018.1	2055.8
155°	1958.1	1983.0
157.5°	1910.7	1928.2
160°	1882.3	1892.4
162.5°	1863.7	1873.3
165°	1836.9	1847.0
167.5°	1817.7	1821.9
170°	1812.5	1812.5
172.5°	1798.2	1794.5
175°	1789.7	1789.7
177.5°	1782.1	1777.8
180°	1777.8	1777.8



TEST NUMBER: P937730  
 CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-6500K

**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	6.40	7.30	7.34	8.27	9.53	19.59	20.49	20.53	21.46	22.72
	3H	7.11	7.92	8.06	8.89	10.18	21.44	22.25	22.39	23.23	24.51
	4H	7.41	8.17	8.38	9.16	10.45	22.09	22.86	23.06	23.84	25.13
	6H	7.66	8.37	8.64	9.35	10.66	22.52	23.23	23.51	24.22	25.53
	8H	7.73	8.40	8.72	9.41	10.71	22.65	23.33	23.64	24.33	25.63
	12H	7.75	8.39	8.74	9.39	10.72	22.72	23.36	23.72	24.36	25.69
4H	2H	13.63	14.39	14.60	15.38	16.67	19.87	20.64	20.84	21.62	22.91
	3H	15.20	15.84	16.18	16.85	18.16	21.92	22.57	22.91	23.58	24.88
	4H	15.29	15.88	16.29	16.89	18.22	22.69	23.28	23.69	24.29	25.62
	6H	15.31	15.81	16.31	16.84	18.17	23.24	23.75	24.25	24.78	26.11
	8H	15.28	15.76	16.29	16.78	18.12	23.41	23.88	24.42	24.90	26.25
	12H	15.24	15.67	16.27	16.71	18.06	23.50	23.94	24.53	24.97	26.32
8H	4H	16.74	17.22	17.75	18.24	19.58	22.76	23.23	23.77	24.25	25.60
	6H	16.99	17.38	18.02	18.44	19.79	23.39	23.79	24.43	24.85	26.19
	8H	17.01	17.36	18.05	18.40	19.76	23.62	23.97	24.66	25.01	26.37
	12H	16.98	17.28	18.02	18.33	19.73	23.77	24.07	24.81	25.12	26.52
12H	4H	16.89	17.32	17.92	18.36	19.71	22.71	23.14	23.74	24.18	25.53
	6H	17.25	17.60	18.29	18.64	20.01	23.38	23.73	24.42	24.77	26.13
	8H	17.32	17.63	18.37	18.67	20.07	23.61	23.92	24.66	24.96	26.36