

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: P938546

Luminaire Tested: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

**Test Information**

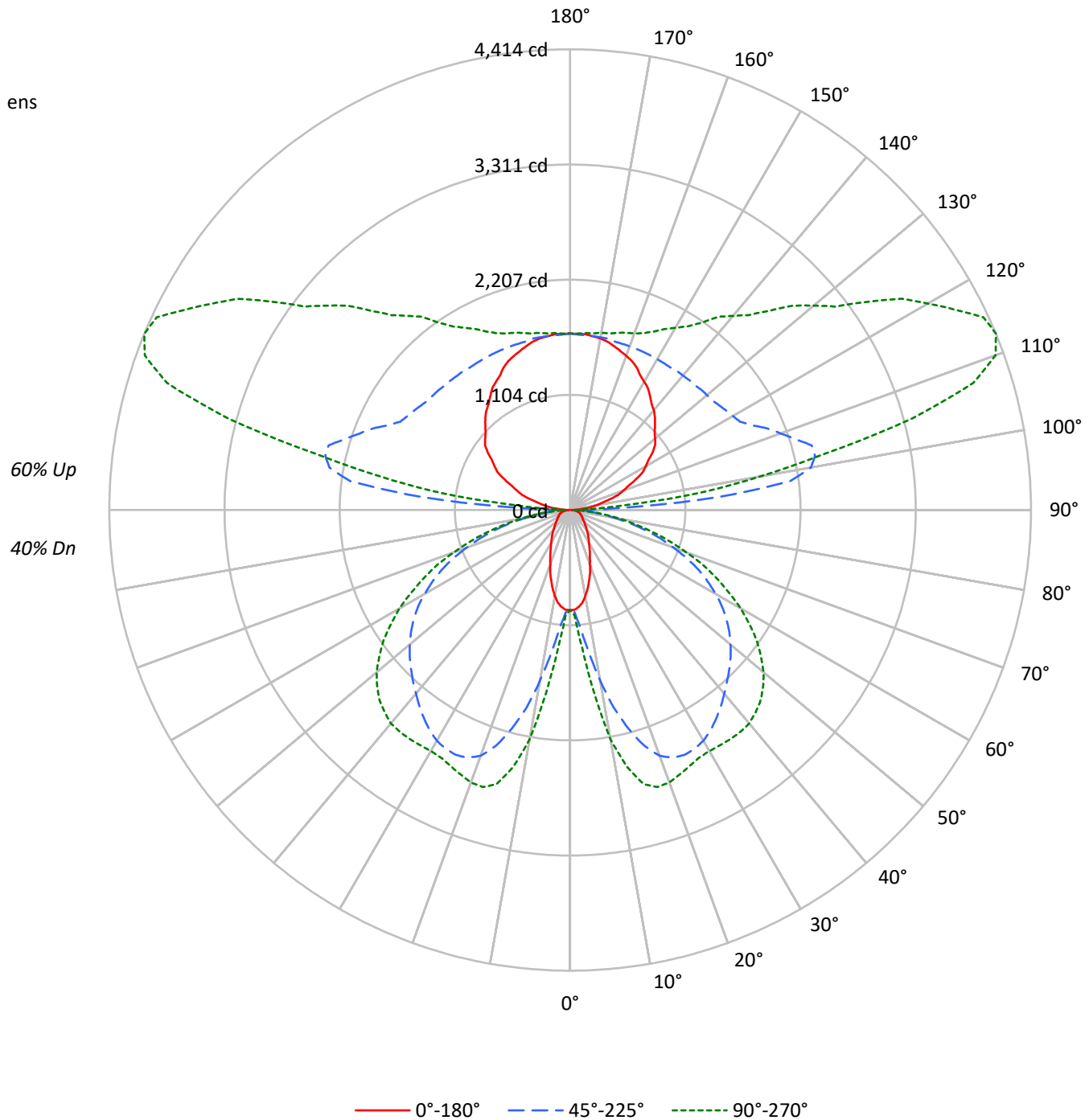
Test Method: LM-79-2019  
Report Number: P938546  
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-8-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18373.8 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 166.4  
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: P938546  
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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	4442	4442	4442
5°	4340	5135	5971
10°	3936	7485	9900
15°	3346	9778	11953
20°	2724	11331	12182
25°	2272	11858	11935
30°	1916	11933	11912
35°	1694	11735	12220
40°	1476	11477	12539
45°	1337	11288	12588
50°	1226	11119	12379
55°	1175	10870	11831
60°	1203	10392	10964
65°	1251	9667	9774
70°	1332	8430	8257
75°	1476	6874	6443
80°	1614	4767	4342
85°	1430	2529	2222

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12588 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.9	0.7
10°-20°	548.9	3.0
20°-30°	960.2	5.2
30°-40°	1236.0	6.7
40°-50°	1380.6	7.5
50°-60°	1322.3	7.2
60°-70°	1047.9	5.7
70°-80°	616.2	3.4
80°-90°	177.6	1.0
90°-100°	824.1	4.5
100°-110°	2166.7	11.8
110°-120°	2246.6	12.2
120°-130°	1802.1	9.8
130°-140°	1414.0	7.7
140°-150°	1085.3	5.9
150°-160°	781.6	4.3
160°-170°	478.2	2.6
170°-180°	161.6	0.9
0°-30°	1633.0	8.9
0°-40°	2869.0	15.6
0°-60°	5571.9	30.3
0°-90°	7413.6	40.3
90°-120°	5237.4	28.5
90°-150°	9538.8	51.9
90°-180°	10960.0	59.7
0°-180°	18373.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	933	1001	1127	1275	1321	86
15°	699	1290	2174	2635	2718	194
25°	446	1462	2589	2703	2706	206
35°	302	1398	2438	2577	2678	188
45°	206	1114	2155	2469	2580	160
55°	148	708	1829	2124	2183	135
65°	117	376	1358	1527	1549	116
75°	86	231	745	819	822	90
85°	31	71	185	203	206	33
90°	11	32	86	43	43	11
95°	109	427	1420	732	498	121
105°	390	591	2395	3637	3393	414
115°	693	842	1919	3827	4368	685
125°	964	1081	1745	2949	3479	856
135°	1149	1265	1691	2381	2699	889
145°	1333	1418	1669	2031	2190	835
155°	1507	1549	1669	1833	1886	692
165°	1626	1648	1669	1735	1756	459
175°	1691	1691	1680	1702	1702	160
180°	1691	1691	1691	1691	1691	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5
2.5°	957.5	957.5	963.7	966.8	972.9	975.9	982.1	988.3	1006.8	1009.9	1016.0
5°	932.8	945.2	985.2	1000.6	1043.7	1102.2	1126.9	1166.9	1249.9	1274.6	1290.0
7.5°	895.9	923.6	1022.2	1046.8	1154.5	1308.5	1373.1	1459.3	1591.7	1656.4	1708.8
10°	837.4	895.9	1071.4	1129.9	1305.4	1539.4	1659.5	1779.5	1979.6	2069.0	2102.8
12.5°	772.7	868.2	1123.8	1203.8	1456.2	1798.0	1942.7	2075.1	2302.9	2423.0	2441.5
15°	698.9	828.2	1173.0	1290.0	1616.3	2013.5	2173.6	2336.8	2549.3	2635.4	2657.0
17.5°	634.2	797.4	1219.2	1342.4	1739.5	2207.5	2370.6	2506.1	2678.5	2737.0	2752.4
20°	554.2	748.2	1249.9	1410.0	1868.8	2349.1	2506.1	2610.7	2727.8	2764.8	2770.8
22.5°	495.7	695.8	1268.5	1434.7	1955.0	2435.3	2567.7	2650.8	2730.8	2743.2	2746.3
25°	446.4	637.3	1265.4	1462.4	2028.9	2487.7	2589.3	2650.8	2697.0	2703.2	2703.2
27.5°	400.2	572.6	1253.0	1468.6	2084.3	2500.0	2580.0	2623.1	2644.7	2657.0	2657.0
30°	360.2	511.0	1222.3	1456.2	2109.0	2487.7	2552.3	2573.8	2595.4	2613.8	2623.1
32.5°	329.5	452.5	1176.1	1431.6	2112.0	2456.8	2503.0	2515.3	2546.2	2589.3	2604.7
35°	301.7	394.1	1123.8	1397.7	2093.5	2407.6	2438.4	2450.7	2512.2	2576.9	2598.5
37.5°	274.0	350.9	1056.0	1339.3	2065.9	2349.1	2370.6	2392.2	2487.7	2564.6	2589.3
40°	246.3	314.0	975.9	1274.6	2022.8	2278.3	2296.7	2330.6	2456.8	2546.2	2570.7
42.5°	224.8	283.3	889.8	1206.9	1967.4	2198.2	2226.0	2275.2	2419.9	2515.3	2543.1
45°	206.3	252.4	797.4	1114.5	1896.5	2115.1	2155.1	2222.9	2376.8	2469.2	2493.8
47.5°	187.8	230.9	702.0	1019.1	1819.5	2031.9	2084.3	2161.3	2318.3	2407.6	2429.2
50°	172.4	209.4	606.5	917.5	1736.4	1942.7	2004.3	2084.3	2244.4	2327.6	2355.2
52.5°	160.1	190.8	517.2	815.9	1641.0	1850.3	1921.2	2004.3	2155.1	2235.2	2253.6
55°	147.8	175.5	440.3	708.2	1542.5	1751.8	1828.8	1908.9	2056.6	2124.4	2136.6
57.5°	141.6	163.2	375.6	606.5	1437.8	1641.0	1727.2	1801.1	1939.6	1991.9	2004.3
60°	132.4	153.9	326.4	520.3	1323.9	1536.3	1610.1	1684.1	1801.1	1844.2	1853.4
62.5°	123.2	147.8	289.4	437.2	1206.9	1413.1	1487.1	1554.8	1653.3	1684.1	1696.4
65°	117.0	141.6	261.7	375.6	1086.8	1283.9	1357.7	1416.2	1496.3	1527.1	1533.2
67.5°	110.8	135.4	240.1	323.3	966.8	1154.5	1209.9	1265.4	1327.0	1357.7	1360.8
70°	101.6	129.4	221.7	286.4	843.6	1006.8	1052.9	1111.4	1160.7	1176.1	1185.3
72.5°	95.4	120.1	209.4	258.6	717.3	865.2	908.3	942.1	985.2	1000.6	1000.6
75°	86.2	107.8	197.0	230.9	588.1	708.2	745.1	778.9	812.8	818.9	809.8
77.5°	77.0	95.4	169.4	193.9	458.7	560.3	591.1	609.6	637.3	643.5	646.6
80°	64.7	83.1	132.4	150.8	332.5	412.5	434.1	449.5	474.1	474.1	480.3
82.5°	49.3	64.7	95.4	107.8	224.8	283.3	301.7	310.9	326.4	326.4	326.4
85°	30.7	40.0	61.6	70.8	135.4	172.4	184.7	187.8	200.1	203.2	203.2
87.5°	15.4	21.6	40.0	43.1	70.8	89.3	89.3	95.4	95.4	92.3	89.3
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	307.9	426.4	485.7	425.6	305.6	215.6	207.0
95°	109.0	250.2	391.3	426.6	757.5	1198.8	1419.5	1266.7	961.1	731.9	705.9
97.5°	188.4	312.9	437.5	468.6	1020.5	1756.3	2124.2	2027.6	1834.5	1689.6	1640.2
100°	249.6	362.6	475.6	503.8	1116.2	1932.6	2340.9	2348.0	2362.1	2372.6	2313.8
102.5°	301.8	407.2	512.6	539.0	1160.1	1988.1	2402.2	2525.2	2771.3	2955.9	2905.5
105°	390.3	479.6	568.9	591.2	1192.5	1994.4	2395.3	2671.2	3222.9	3636.7	3609.6
107.5°	481.1	564.3	647.5	668.3	1198.6	1905.7	2259.2	2644.0	3413.6	3990.8	3997.3
110°	542.4	617.6	692.7	711.4	1189.5	1827.0	2145.7	2575.9	3436.2	4081.5	4109.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.5	674.1	745.7	763.6	1189.9	1758.2	2042.4	2482.7	3363.2	4023.6	4067.0
115°	693.3	759.4	825.4	842.0	1200.9	1679.5	1918.8	2342.9	3191.1	3827.3	3887.4
117.5°	782.9	843.0	903.0	918.0	1223.2	1630.2	1833.6	2216.4	2982.0	3556.1	3622.8
120°	835.1	891.6	948.1	962.2	1241.4	1613.5	1799.6	2149.4	2848.9	3373.5	3438.2
122.5°	886.2	943.2	1000.1	1014.4	1267.5	1604.9	1773.5	2088.4	2718.4	3190.7	3254.7
125°	964.5	1016.4	1068.4	1081.4	1302.6	1597.6	1745.1	2012.7	2547.7	2949.0	3007.9
127.5°	1028.1	1080.5	1133.0	1146.1	1337.8	1593.5	1721.3	1951.0	2410.4	2755.0	2804.7
130°	1062.1	1118.6	1175.1	1189.2	1363.5	1596.0	1712.2	1916.7	2325.8	2632.5	2678.4
132.5°	1097.3	1153.8	1210.3	1224.4	1384.4	1597.7	1704.3	1887.3	2253.4	2528.1	2569.2
135°	1149.4	1200.9	1252.4	1265.2	1407.0	1596.1	1690.7	1844.0	2150.7	2380.6	2416.0
137.5°	1202.8	1253.8	1304.6	1317.3	1441.0	1606.0	1688.5	1818.1	2077.2	2271.6	2300.7
140°	1247.0	1294.0	1340.8	1352.5	1461.9	1607.6	1680.5	1792.4	2016.4	2184.3	2211.4
142.5°	1281.0	1324.4	1367.8	1378.6	1479.3	1613.4	1680.5	1778.8	1975.5	2123.0	2146.3
145°	1333.3	1371.1	1408.9	1418.4	1502.0	1613.4	1669.1	1749.5	1910.4	2031.1	2048.8
147.5°	1385.5	1422.3	1459.1	1468.3	1535.3	1624.5	1669.1	1732.4	1858.9	1953.9	1968.5
150°	1419.5	1452.8	1486.1	1494.4	1552.6	1630.3	1669.1	1722.6	1829.5	1909.7	1921.5
152.5°	1454.7	1479.9	1505.2	1511.5	1564.0	1634.1	1669.1	1714.8	1806.0	1874.5	1883.4
155°	1506.9	1525.6	1544.2	1548.8	1589.0	1642.3	1669.1	1705.4	1778.1	1832.6	1838.5
157.5°	1545.5	1563.7	1581.8	1586.3	1613.9	1650.7	1669.1	1697.4	1753.9	1796.3	1800.4
160°	1571.6	1585.7	1599.8	1603.3	1625.2	1654.4	1669.1	1693.3	1741.8	1778.1	1780.4
162.5°	1597.7	1608.2	1618.9	1621.5	1637.3	1658.5	1669.1	1689.6	1730.4	1761.1	1763.3
165°	1626.0	1635.5	1645.2	1647.5	1654.7	1664.3	1669.1	1683.7	1713.0	1735.0	1737.3
167.5°	1652.1	1656.6	1661.2	1662.4	1668.4	1676.5	1680.5	1690.0	1709.2	1723.6	1724.6
170°	1669.1	1673.6	1678.2	1679.4	1679.7	1680.2	1680.5	1690.0	1709.2	1723.6	1723.6
172.5°	1678.2	1679.2	1680.2	1680.5	1680.5	1680.5	1680.5	1688.0	1703.1	1714.5	1713.6
175°	1690.7	1690.7	1690.7	1690.7	1687.3	1682.7	1680.5	1685.3	1694.8	1702.0	1702.0
177.5°	1690.7	1690.7	1690.7	1690.7	1688.0	1684.5	1682.7	1686.6	1694.1	1699.7	1698.7
180°	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	957.5	957.5
2.5°	1022.2	1016.0
5°	1314.6	1320.8
7.5°	1770.2	1767.2
10°	2201.3	2229.1
12.5°	2515.3	2521.5
15°	2706.3	2718.5
17.5°	2780.1	2783.2
20°	2783.2	2777.0
22.5°	2749.4	2743.2
25°	2709.4	2706.3
27.5°	2672.3	2675.4
30°	2657.0	2666.2
32.5°	2657.0	2672.3
35°	2663.1	2678.5
37.5°	2660.1	2678.5
40°	2647.8	2669.3
42.5°	2613.8	2629.3
45°	2561.5	2580.0
47.5°	2493.8	2506.1
50°	2407.6	2419.9
52.5°	2299.8	2302.9
55°	2170.5	2182.9
57.5°	2031.9	2035.0
60°	1878.0	1887.3
62.5°	1714.8	1714.8
65°	1542.5	1548.7
67.5°	1363.9	1379.3
70°	1182.3	1185.3
72.5°	1003.7	1003.7
75°	818.9	822.0
77.5°	643.5	643.5
80°	477.2	480.3
82.5°	329.5	335.6
85°	206.3	206.3
87.5°	95.4	86.2
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.0	498.1
97.5°	1442.4	1244.7
100°	2078.2	1842.7
102.5°	2703.7	2502.0
105°	3501.2	3392.8
107.5°	4023.5	4049.7
110°	4222.7	4335.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4240.5	4413.9
115°	4128.0	4368.5
117.5°	3889.6	4156.4
120°	3697.5	3956.6
122.5°	3510.4	3766.1
125°	3243.5	3479.0
127.5°	3003.4	3202.1
130°	2862.0	3045.6
132.5°	2733.6	2898.0
135°	2557.7	2699.4
137.5°	2416.6	2532.6
140°	2319.8	2428.3
142.5°	2239.6	2332.9
145°	2119.4	2190.0
147.5°	2027.0	2085.5
150°	1969.0	2016.4
152.5°	1919.2	1955.1
155°	1862.2	1885.9
157.5°	1817.0	1833.6
160°	1790.1	1799.6
162.5°	1772.3	1781.4
165°	1747.0	1756.5
167.5°	1728.7	1732.7
170°	1723.6	1723.6
172.5°	1710.1	1706.6
175°	1702.0	1702.0
177.5°	1694.7	1690.7
180°	1690.7	1690.7



TEST NUMBER: P938546  
 CATALOG NUMBER: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-8-4000K

**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	5.23	6.04	6.26	7.09	8.49	18.41	19.22	19.44	20.26	21.66
	3H	5.94	6.66	6.97	7.71	9.13	20.25	20.98	21.29	22.03	23.44
	4H	6.23	6.92	7.28	7.97	9.40	20.89	21.58	21.94	22.63	24.06
	6H	6.48	7.12	7.54	8.17	9.61	21.32	21.96	22.38	23.01	24.45
	8H	6.55	7.15	7.61	8.22	9.66	21.44	22.04	22.50	23.12	24.55
	12H	6.56	7.14	7.63	8.20	9.66	21.50	22.08	22.58	23.15	24.61
4H	2H	12.44	13.13	13.50	14.19	15.61	18.68	19.37	19.74	20.42	21.85
	3H	14.01	14.58	15.07	15.66	17.10	20.72	21.30	21.79	22.38	23.82
	4H	14.10	14.63	15.17	15.70	17.16	21.49	22.02	22.56	23.09	24.55
	6H	14.11	14.56	15.19	15.66	17.11	22.02	22.48	23.10	23.57	25.03
	8H	14.08	14.51	15.16	15.59	17.07	22.18	22.61	23.27	23.70	25.17
	12H	14.04	14.42	15.14	15.52	17.00	22.27	22.66	23.37	23.76	25.24
8H	4H	15.54	15.97	16.62	17.05	18.52	21.54	21.97	22.62	23.05	24.53
	6H	15.78	16.13	16.88	17.26	18.73	22.17	22.52	23.27	23.65	25.12
	8H	15.80	16.11	16.91	17.22	18.70	22.39	22.70	23.50	23.81	25.30
	12H	15.76	16.03	16.88	17.14	18.67	22.53	22.80	23.65	23.91	25.43
12H	4H	15.68	16.07	16.78	17.17	18.64	21.49	21.88	22.59	22.98	24.45
	6H	16.04	16.35	17.15	17.46	18.94	22.15	22.46	23.26	23.57	25.06
	8H	16.10	16.38	17.22	17.48	19.01	22.38	22.65	23.50	23.76	25.28