

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: P937643

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

**Test Information**

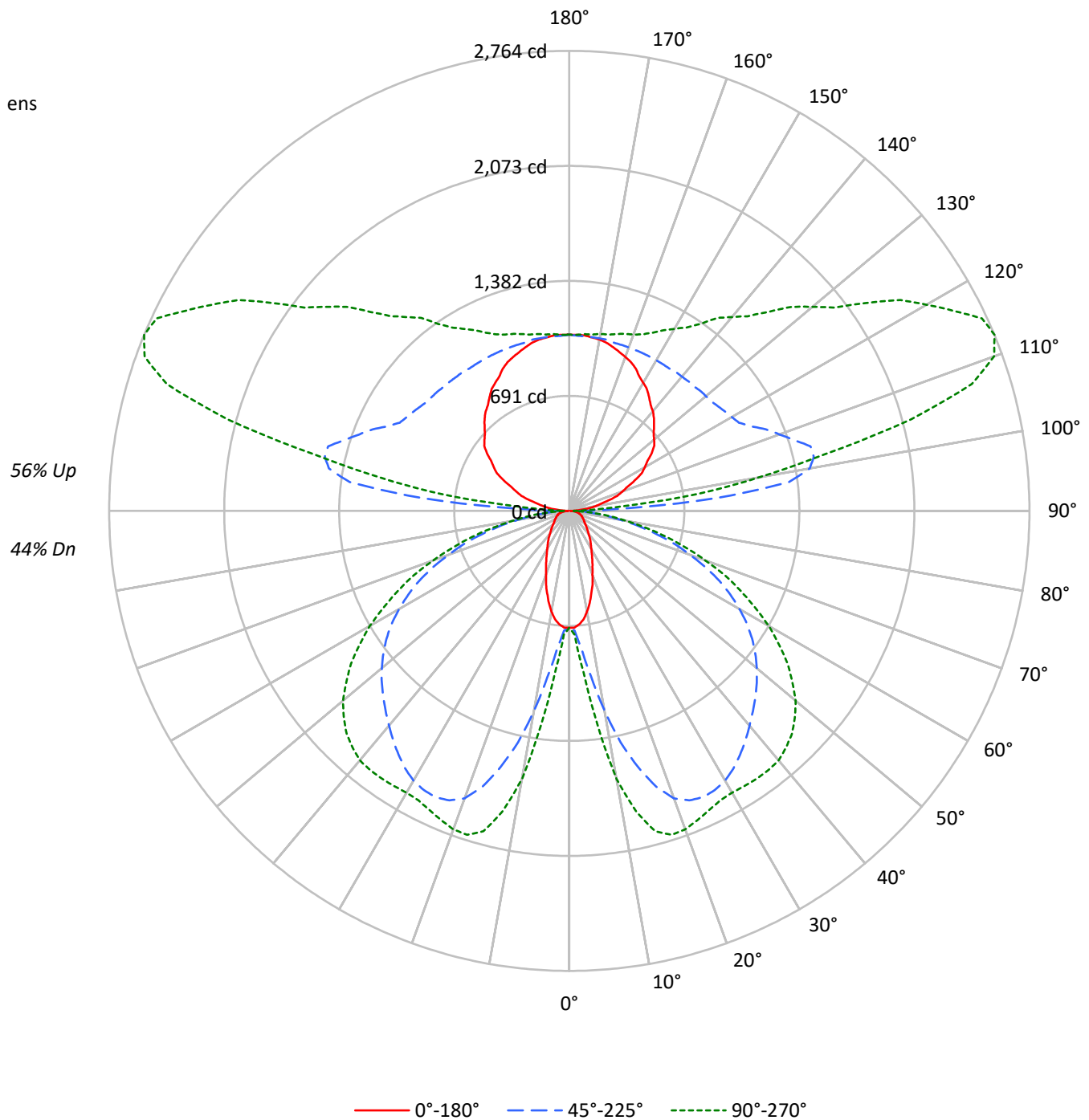
Test Method: LM-79-2019  
Report Number: P937643  
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12297.8 lumens  
Efficiency: N/A  
Efficacy: 106.0 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): 116  
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

TEST NUMBER: P937643  
CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44																												
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36																												
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30																												
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24																												
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20																												
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17																												
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15																												
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13																												
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11																												
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10																												
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9																												

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

	0°	45°	90°
0°	3257	3257	3257
5°	3182	3764	4378
10°	2886	5487	7258
15°	2453	7169	8764
20°	1997	8307	8932
25°	1666	8694	8750
30°	1405	8748	8734
35°	1242	8603	8959
40°	1082	8414	9193
45°	980	8276	9229
50°	899	8152	9076
55°	861	7969	8674
60°	881	7620	8039
65°	917	7087	7166
70°	977	6181	6053
75°	1082	5039	4724
80°	1183	3494	3184
85°	1048	1855	1630

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9229 cd/sqm



TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.8	0.7
10°-20°	402.4	3.3
20°-30°	703.9	5.7
30°-40°	906.2	7.4
40°-50°	1012.2	8.2
50°-60°	969.4	7.9
60°-70°	768.3	6.2
70°-80°	451.8	3.7
80°-90°	129.5	1.1
90°-100°	516.1	4.2
100°-110°	1356.8	11.0
110°-120°	1406.8	11.4
120°-130°	1128.4	9.2
130°-140°	885.4	7.2
140°-150°	679.6	5.5
150°-160°	489.4	4.0
160°-170°	299.5	2.4
170°-180°	101.2	0.8
0°-30°	1197.2	9.7
0°-40°	2103.4	17.1
0°-60°	4085.0	33.2
0°-90°	5434.6	44.2
90°-120°	3279.7	26.7
90°-150°	5973.1	48.6
90°-180°	6863.0	55.8
0°-180°	12297.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	684	734	826	934	968	63
15°	512	946	1594	1932	1993	143
25°	327	1072	1898	1982	1984	151
35°	221	1025	1788	1889	1964	138
45°	151	817	1580	1810	1892	117
55°	108	519	1341	1557	1600	99
65°	86	275	995	1120	1135	85
75°	63	169	546	600	603	66
85°	22	52	136	149	151	24
90°	7	20	54	27	27	7
95°	68	267	889	458	312	76
105°	244	370	1500	2277	2124	259
115°	434	527	1202	2397	2736	429
125°	604	677	1093	1847	2178	536
135°	720	792	1059	1491	1690	557
145°	835	888	1045	1272	1371	523
155°	944	970	1045	1148	1181	434
165°	1018	1032	1045	1086	1100	287
175°	1059	1059	1052	1066	1066	100
180°	1059	1059	1059	1059	1059	



TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	702.0	702.0	706.5	708.8	713.3	715.5	720.0	724.6	738.1	740.4	744.9
5°	683.9	693.0	722.3	733.6	765.2	808.1	826.1	855.5	916.4	934.5	945.8
7.5°	656.8	677.2	749.4	767.4	846.4	959.3	1006.7	1069.9	1167.0	1214.4	1252.7
10°	613.9	656.8	785.5	828.4	957.1	1128.6	1216.6	1304.7	1451.3	1516.8	1541.6
12.5°	566.5	636.5	823.9	882.6	1067.7	1318.2	1424.3	1521.4	1688.4	1776.4	1789.9
15°	512.4	607.2	860.0	945.8	1185.0	1476.2	1593.5	1713.2	1868.9	1932.1	1947.9
17.5°	465.0	584.7	893.8	984.1	1275.3	1618.4	1738.1	1837.3	1963.7	2006.6	2018.0
20°	406.3	548.5	916.4	1033.8	1370.1	1722.3	1837.3	1914.1	1999.9	2026.9	2031.5
22.5°	363.4	510.1	930.0	1051.9	1433.3	1785.5	1882.5	1943.4	2002.2	2011.1	2013.4
25°	327.3	467.2	927.7	1072.2	1487.5	1823.8	1898.3	1943.4	1977.3	1981.8	1981.8
27.5°	293.4	419.8	918.7	1076.7	1528.1	1832.9	1891.6	1923.2	1939.0	1947.9	1947.9
30°	264.1	374.7	896.1	1067.7	1546.1	1823.8	1871.2	1887.0	1902.8	1916.3	1923.2
32.5°	241.5	331.8	862.2	1049.6	1548.4	1801.3	1835.1	1844.1	1866.7	1898.3	1909.6
35°	221.2	289.0	823.9	1024.8	1534.9	1765.1	1787.7	1796.7	1841.8	1889.2	1905.0
37.5°	200.9	257.3	774.2	981.9	1514.5	1722.3	1738.1	1753.9	1823.8	1880.2	1898.3
40°	180.6	230.3	715.5	934.5	1482.9	1670.3	1683.8	1708.7	1801.3	1866.7	1884.7
42.5°	164.8	207.6	652.3	884.8	1442.4	1611.7	1632.0	1668.0	1774.1	1844.1	1864.5
45°	151.3	185.1	584.7	817.1	1390.4	1550.7	1580.1	1629.7	1742.5	1810.2	1828.3
47.5°	137.7	169.3	514.6	747.1	1334.0	1489.8	1528.1	1584.6	1699.6	1765.1	1780.9
50°	126.4	153.5	444.7	672.6	1273.1	1424.3	1469.4	1528.1	1645.5	1706.5	1726.7
52.5°	117.4	139.9	379.2	598.1	1203.0	1356.5	1408.5	1469.4	1580.1	1638.7	1652.2
55°	108.3	128.6	322.8	519.1	1130.9	1284.4	1340.7	1399.5	1507.8	1557.4	1566.5
57.5°	103.9	119.7	275.4	444.7	1054.1	1203.0	1266.2	1320.5	1422.0	1460.4	1469.4
60°	97.0	112.8	239.2	381.5	970.6	1126.3	1180.5	1234.6	1320.5	1352.1	1358.8
62.5°	90.3	108.3	212.2	320.6	884.8	1036.1	1090.2	1139.9	1212.1	1234.6	1243.7
65°	85.8	103.9	191.8	275.4	796.8	941.2	995.4	1038.3	1097.0	1119.6	1124.1
67.5°	81.2	99.3	176.0	237.0	708.8	846.4	887.1	927.7	972.9	995.4	997.7
70°	74.5	94.8	162.5	209.9	618.5	738.1	772.0	814.8	851.0	862.2	869.0
72.5°	70.0	88.1	153.5	189.6	525.9	634.3	665.9	690.7	722.3	733.6	733.6
75°	63.2	79.0	144.4	169.3	431.2	519.1	546.2	571.1	595.9	600.5	593.6
77.5°	56.5	70.0	124.1	142.2	336.4	410.8	433.4	446.9	467.2	471.7	474.0
80°	47.4	61.0	97.0	110.6	243.8	302.4	318.2	329.5	347.6	347.6	352.2
82.5°	36.1	47.4	70.0	79.0	164.8	207.6	221.2	228.0	239.2	239.2	239.2
85°	22.5	29.4	45.2	51.9	99.3	126.4	135.5	137.7	146.7	149.0	149.0
87.5°	11.3	15.8	29.4	31.6	51.9	65.4	65.4	70.0	70.0	67.7	65.4
90°	7.1	12.8	18.4	19.9	31.3	46.4	54.0	48.0	36.0	27.0	27.0
92.5°	28.4	76.8	125.1	137.2	192.8	267.0	304.1	266.5	191.4	135.0	129.7
95°	68.2	156.6	245.0	267.2	474.4	750.7	888.9	793.2	601.8	458.3	442.1
97.5°	118.0	195.9	274.0	293.5	639.1	1099.8	1330.1	1269.7	1148.7	1058.0	1027.1
100°	156.3	227.0	297.8	315.5	698.9	1210.2	1465.9	1470.3	1479.1	1485.8	1448.9
102.5°	189.0	255.0	321.0	337.5	726.4	1244.9	1504.2	1581.2	1735.4	1851.0	1819.4
105°	244.5	300.3	356.2	370.2	746.8	1248.9	1499.9	1672.6	2018.1	2277.3	2260.3
107.5°	301.3	353.4	405.5	418.5	750.6	1193.3	1414.7	1655.6	2137.5	2498.9	2503.0
110°	339.6	386.7	433.7	445.5	744.9	1144.0	1343.6	1613.0	2151.7	2555.8	2573.5



TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	377.3	422.1	467.0	478.2	745.1	1101.1	1279.0	1554.7	2106.0	2519.6	2546.8
115°	434.2	475.5	516.9	527.3	752.0	1051.7	1201.5	1467.1	1998.3	2396.7	2434.4
117.5°	490.3	527.9	565.4	574.8	766.0	1020.8	1148.2	1387.9	1867.3	2226.8	2268.6
120°	523.0	558.3	593.7	602.5	777.3	1010.4	1126.9	1345.9	1783.9	2112.4	2153.0
122.5°	554.9	590.6	626.3	635.2	793.7	1004.9	1110.5	1307.8	1702.2	1998.1	2038.1
125°	604.0	636.5	669.0	677.2	815.7	1000.4	1092.8	1260.4	1595.4	1846.7	1883.6
127.5°	643.8	676.6	709.4	717.6	837.7	997.9	1077.9	1221.7	1509.4	1725.2	1756.3
130°	665.0	700.4	735.7	744.6	853.8	999.4	1072.2	1200.2	1456.4	1648.5	1677.2
132.5°	687.1	722.4	757.8	766.7	866.9	1000.4	1067.2	1181.9	1411.1	1583.0	1608.8
135°	719.8	752.0	784.3	792.3	881.1	999.5	1058.7	1154.7	1346.7	1490.7	1512.9
137.5°	753.2	785.0	817.0	824.9	902.4	1005.7	1057.2	1138.4	1300.8	1422.5	1440.7
140°	780.8	810.2	839.6	847.0	915.4	1006.7	1052.3	1122.4	1262.7	1367.8	1384.8
142.5°	802.2	829.4	856.5	863.3	926.3	1010.3	1052.3	1113.9	1237.0	1329.5	1344.1
145°	834.9	858.6	882.3	888.2	940.6	1010.3	1045.2	1095.6	1196.3	1271.9	1282.9
147.5°	867.5	890.6	913.7	919.5	961.4	1017.3	1045.2	1084.8	1164.1	1223.5	1232.7
150°	888.9	909.7	930.6	935.8	972.3	1020.9	1045.2	1078.7	1145.6	1195.9	1203.3
152.5°	910.9	926.7	942.5	946.5	979.3	1023.2	1045.2	1073.8	1131.0	1173.8	1179.5
155°	943.6	955.3	967.0	969.9	995.0	1028.5	1045.2	1067.9	1113.4	1147.5	1151.2
157.5°	967.7	979.1	990.5	993.4	1010.6	1033.7	1045.2	1062.9	1098.2	1124.8	1127.4
160°	984.1	993.0	1001.8	1004.0	1017.8	1036.1	1045.2	1060.4	1090.7	1113.4	1115.0
162.5°	1000.4	1007.1	1013.8	1015.4	1025.3	1038.5	1045.2	1058.0	1083.5	1102.8	1104.2
165°	1018.2	1024.2	1030.2	1031.7	1036.2	1042.2	1045.2	1054.3	1072.7	1086.5	1088.0
167.5°	1034.5	1037.3	1040.2	1040.9	1044.7	1049.7	1052.3	1058.3	1070.3	1079.3	1079.9
170°	1045.2	1048.0	1050.9	1051.6	1051.9	1052.1	1052.3	1058.3	1070.3	1079.3	1079.3
172.5°	1050.9	1051.5	1052.1	1052.3	1052.3	1052.3	1052.3	1057.1	1066.5	1073.6	1073.1
175°	1058.7	1058.7	1058.7	1058.7	1056.6	1053.7	1052.3	1055.3	1061.3	1065.8	1065.8
177.5°	1058.7	1058.7	1058.7	1058.7	1057.1	1054.8	1053.7	1056.1	1060.8	1064.4	1063.8
180°	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7



TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	702.0	702.0
2.5°	749.4	744.9
5°	963.8	968.3
7.5°	1297.8	1295.6
10°	1613.9	1634.2
12.5°	1844.1	1848.7
15°	1984.1	1993.1
17.5°	2038.2	2040.5
20°	2040.5	2036.0
22.5°	2015.7	2011.1
25°	1986.4	1984.1
27.5°	1959.2	1961.5
30°	1947.9	1954.8
32.5°	1947.9	1959.2
35°	1952.5	1963.7
37.5°	1950.2	1963.7
40°	1941.2	1957.0
42.5°	1916.3	1927.6
45°	1878.0	1891.6
47.5°	1828.3	1837.3
50°	1765.1	1774.1
52.5°	1686.1	1688.4
55°	1591.3	1600.4
57.5°	1489.8	1492.0
60°	1376.9	1383.7
62.5°	1257.3	1257.3
65°	1130.9	1135.4
67.5°	999.9	1011.2
70°	866.8	869.0
72.5°	735.8	735.8
75°	600.5	602.7
77.5°	471.7	471.7
80°	349.9	352.2
82.5°	241.5	246.1
85°	151.3	151.3
87.5°	70.0	63.2
90°	27.0	27.0
92.5°	108.2	86.7
95°	377.0	311.9
97.5°	903.2	779.5
100°	1301.4	1153.9
102.5°	1693.1	1566.7
105°	2192.4	2124.5
107.5°	2519.5	2535.9
110°	2644.2	2714.9





TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2655.3	2764.0
115°	2584.9	2735.6
117.5°	2435.6	2602.7
120°	2315.4	2477.7
122.5°	2198.2	2358.2
125°	2031.0	2178.5
127.5°	1880.7	2005.2
130°	1792.1	1907.1
132.5°	1711.8	1814.7
135°	1601.7	1690.4
137.5°	1513.3	1585.9
140°	1452.6	1520.5
142.5°	1402.5	1460.9
145°	1327.1	1371.3
147.5°	1269.3	1306.0
150°	1232.9	1262.7
152.5°	1201.8	1224.2
155°	1166.1	1180.9
157.5°	1137.8	1148.2
160°	1121.0	1126.9
162.5°	1109.9	1115.6
165°	1094.0	1099.9
167.5°	1082.4	1085.0
170°	1079.3	1079.3
172.5°	1070.9	1068.7
175°	1065.8	1065.8
177.5°	1061.3	1058.7
180°	1058.7	1058.7



TEST NUMBER: P937643

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-2700K

**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	4.55	5.40	5.55	6.41	7.76	17.73	18.58	18.73	19.59	20.94
	3H	5.26	6.02	6.27	7.04	8.41	19.57	20.33	20.58	21.35	22.72
	4H	5.56	6.27	6.58	7.30	8.68	20.21	20.93	21.24	21.96	23.34
	6H	5.81	6.47	6.84	7.50	8.89	20.64	21.31	21.68	22.34	23.73
	8H	5.87	6.50	6.91	7.55	8.94	20.76	21.40	21.80	22.44	23.83
	12H	5.89	6.49	6.93	7.53	8.94	20.83	21.43	21.87	22.47	23.88
4H	2H	11.77	12.49	12.79	13.51	14.89	18.00	18.72	19.03	19.75	21.13
	3H	13.33	13.93	14.37	14.99	16.38	20.05	20.65	21.08	21.70	23.09
	4H	13.43	13.98	14.47	15.02	16.44	20.81	21.37	21.86	22.41	23.82
	6H	13.44	13.91	14.49	14.98	16.39	21.35	21.83	22.41	22.90	24.30
	8H	13.41	13.86	14.47	14.92	16.34	21.51	21.96	22.57	23.02	24.44
	12H	13.37	13.77	14.44	14.85	16.28	21.61	22.01	22.68	23.09	24.51
8H	4H	14.87	15.31	15.92	16.38	17.80	20.87	21.32	21.93	22.38	23.80
	6H	15.11	15.48	16.19	16.58	18.00	21.50	21.87	22.58	22.97	24.39
	8H	15.13	15.45	16.21	16.54	17.98	21.72	22.05	22.81	23.13	24.57
	12H	15.10	15.38	16.19	16.46	17.94	21.86	22.15	22.96	23.23	24.71
12H	4H	15.01	15.41	16.09	16.49	17.92	20.82	21.23	21.90	22.30	23.73
	6H	15.37	15.69	16.46	16.78	18.22	21.48	21.81	22.57	22.90	24.34
	8H	15.44	15.72	16.53	16.81	18.29	21.71	22.00	22.80	23.08	24.56