

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: P937448

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

**Test Information**

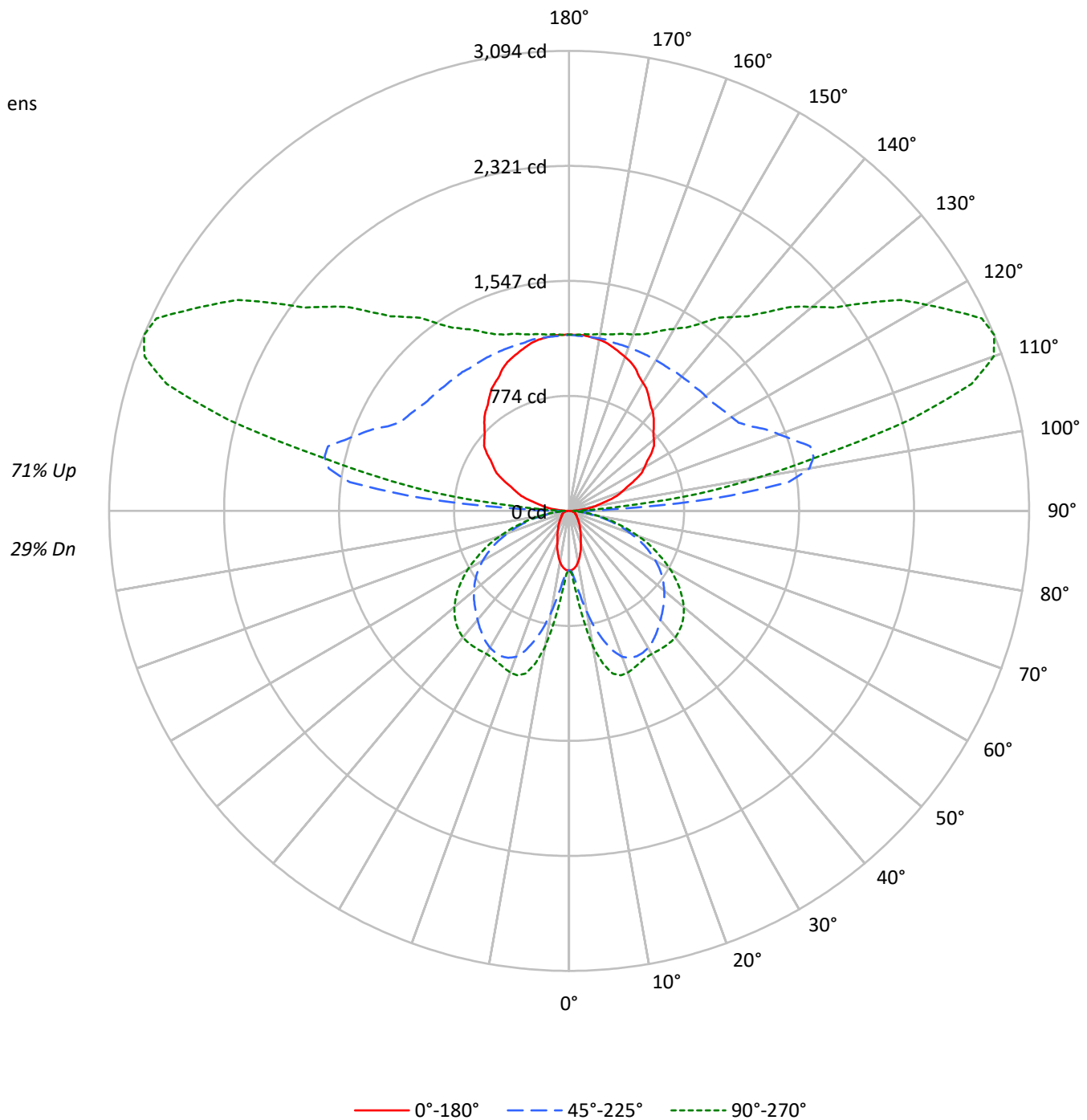
Test Method: LM-79-2019  
Report Number: P937448  
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10773.5 lumens  
Efficiency: N/A  
Efficacy: 130.7 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: Semi-Indirect  
  
Input Watts (W): 82.4  
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

TEST NUMBER: P937448  
CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P937448

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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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7			7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6			6

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

	0°	45°	90°
0°	1850	1850	1850
5°	1808	2139	2487
10°	1640	3118	4124
15°	1394	4074	4980
20°	1134	4721	5075
25°	947	4940	4972
30°	798	4971	4962
35°	705	4889	5091
40°	615	4781	5224
45°	557	4703	5244
50°	511	4632	5157
55°	490	4528	4928
60°	501	4330	4567
65°	522	4027	4071
70°	556	3512	3440
75°	617	2864	2684
80°	674	1986	1808
85°	596	1054	926

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5244 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.6	0.5
10°-20°	228.7	2.1
20°-30°	400.0	3.7
30°-40°	514.9	4.8
40°-50°	575.1	5.3
50°-60°	550.8	5.1
60°-70°	436.5	4.1
70°-80°	256.7	2.4
80°-90°	75.8	0.7
90°-100°	577.8	5.4
100°-110°	1518.9	14.1
110°-120°	1574.9	14.6
120°-130°	1263.3	11.7
130°-140°	991.2	9.2
140°-150°	760.8	7.1
150°-160°	547.9	5.1
160°-170°	335.2	3.1
170°-180°	113.3	1.1
0°-30°	680.2	6.3
0°-40°	1195.1	11.1
0°-60°	2321.1	21.5
0°-90°	3090.2	28.7
90°-120°	3671.6	34.1
90°-150°	6686.9	62.1
90°-180°	7683.0	71.3
0°-180°	10773.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	389	417	469	531	550	36
15°	291	537	906	1098	1132	81
25°	186	609	1079	1126	1127	86
35°	126	582	1016	1074	1116	78
45°	86	464	898	1029	1075	66
55°	62	295	762	885	909	56
65°	49	156	566	636	645	48
75°	36	96	310	341	342	38
85°	13	30	77	85	86	14
90°	8	22	60	30	30	7
95°	76	299	995	513	349	85
105°	274	414	1679	2549	2378	290
115°	486	590	1345	2683	3062	480
125°	676	758	1223	2067	2439	600
135°	806	887	1185	1669	1892	623
145°	935	994	1170	1424	1535	586
155°	1056	1086	1170	1285	1322	485
165°	1140	1155	1170	1216	1231	322
175°	1185	1185	1178	1193	1193	113
180°	1185	1185	1185	1185	1185	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8
2.5°	398.8	398.8	401.4	402.7	405.2	406.6	409.2	411.7	419.4	420.6	423.2
5°	388.6	393.8	410.4	416.8	434.8	459.2	469.4	486.0	520.7	531.0	537.4
7.5°	373.2	384.8	425.8	436.0	481.0	545.0	572.0	607.9	663.0	690.0	711.8
10°	348.8	373.2	446.4	470.7	543.8	641.2	691.3	741.3	824.6	861.8	876.0
12.5°	322.0	361.6	468.2	501.4	606.6	749.0	809.3	864.4	959.3	1009.4	1017.0
15°	291.2	345.0	488.6	537.4	673.4	838.8	905.5	973.4	1061.9	1097.8	1106.8
17.5°	264.2	332.2	507.9	559.2	724.6	919.6	987.6	1044.0	1115.8	1140.2	1146.6
20°	230.8	311.6	520.7	587.4	778.5	978.6	1044.0	1087.6	1136.3	1151.7	1154.3
22.5°	206.4	289.8	528.4	597.6	814.4	1014.5	1069.6	1104.3	1137.6	1142.7	1144.0
25°	186.0	265.4	527.1	609.2	845.2	1036.3	1078.6	1104.3	1123.5	1126.1	1126.1
27.5°	166.8	238.6	522.0	611.8	868.3	1041.4	1074.8	1092.7	1101.7	1106.8	1106.8
30°	150.0	212.9	509.2	606.6	878.6	1036.3	1063.2	1072.2	1081.2	1088.9	1092.7
32.5°	137.2	188.6	490.0	596.4	879.8	1023.4	1042.7	1047.8	1060.6	1078.6	1085.0
35°	125.6	164.2	468.2	582.2	872.1	1003.0	1015.8	1020.9	1046.6	1073.5	1082.4
37.5°	114.2	146.2	439.9	557.9	860.6	978.6	987.6	996.5	1036.3	1068.4	1078.6
40°	102.6	130.8	406.6	531.0	842.6	949.1	956.8	970.9	1023.4	1060.6	1070.9
42.5°	93.6	118.0	370.6	502.8	819.6	915.7	927.3	947.8	1008.1	1047.8	1059.4
45°	86.0	105.2	332.2	464.2	790.0	881.1	897.8	926.0	990.1	1028.6	1038.8
47.5°	78.2	96.2	292.4	424.5	758.0	846.5	868.3	900.4	965.8	1003.0	1011.9
50°	71.8	87.2	252.6	382.2	723.4	809.3	834.9	868.3	935.0	969.6	981.1
52.5°	66.6	79.6	215.4	339.8	683.6	770.8	800.3	834.9	897.8	931.1	938.8
55°	61.6	73.1	183.4	295.0	642.6	729.8	761.8	795.2	856.7	885.0	890.1
57.5°	59.0	68.0	156.4	252.6	599.0	683.6	719.5	750.3	808.0	829.8	834.9
60°	55.2	64.2	136.0	216.8	551.5	640.0	670.8	701.6	750.3	768.2	772.1
62.5°	51.3	61.6	120.6	182.2	502.8	588.7	619.4	647.7	688.7	701.6	706.7
65°	48.8	59.0	109.0	156.4	452.8	534.8	565.6	590.0	623.3	636.2	638.7
67.5°	46.2	56.4	100.0	134.6	402.7	481.0	504.0	527.1	552.8	565.6	566.8
70°	42.4	53.8	92.4	119.2	351.4	419.4	438.6	463.0	483.5	490.0	493.8
72.5°	39.8	50.0	87.2	107.8	298.8	360.4	378.4	392.4	410.4	416.8	416.8
75°	36.0	44.8	82.0	96.2	245.0	295.0	310.4	324.4	338.6	341.2	337.3
77.5°	32.0	39.8	70.6	80.8	191.1	233.4	246.2	254.0	265.4	268.0	269.4
80°	27.0	34.6	55.2	62.8	138.6	171.8	180.8	187.2	197.5	197.5	200.0
82.5°	20.6	27.0	39.8	44.8	93.6	118.0	125.6	129.6	136.0	136.0	136.0
85°	12.8	16.6	25.6	29.5	56.4	71.8	77.0	78.2	83.4	84.6	84.6
87.5°	6.4	9.0	16.6	18.0	29.5	37.2	37.2	39.8	39.8	38.4	37.2
90°	7.9	14.3	20.7	22.3	35.0	51.9	60.4	53.7	40.3	30.2	30.2
92.5°	31.8	86.0	140.1	153.6	215.8	298.9	340.4	298.3	214.3	151.2	145.2
95°	76.4	175.4	274.3	299.1	531.1	840.4	995.1	888.0	673.7	513.1	494.9
97.5°	132.1	219.4	306.7	328.5	715.4	1231.2	1489.1	1421.4	1286.0	1184.4	1149.8
100°	175.0	254.2	333.4	353.2	782.5	1354.8	1641.0	1646.0	1655.8	1663.3	1622.0
102.5°	211.6	285.4	359.3	377.8	813.1	1393.7	1684.0	1770.2	1942.8	2072.2	2036.8
105°	273.7	336.2	398.7	414.4	836.0	1398.1	1679.2	1872.5	2259.3	2549.4	2530.4
107.5°	337.2	395.6	453.9	468.5	840.3	1335.9	1583.7	1853.5	2393.0	2797.5	2802.1
110°	380.2	432.9	485.6	498.8	833.9	1280.7	1504.2	1805.8	2408.8	2861.2	2881.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	422.4	472.6	522.8	535.4	834.2	1232.6	1431.8	1740.5	2357.7	2820.7	2851.1
115°	486.0	532.3	578.7	590.3	841.8	1177.4	1345.1	1642.5	2237.1	2683.1	2725.2
117.5°	548.9	590.9	633.0	643.5	857.5	1142.7	1285.4	1553.7	2090.4	2492.9	2539.6
120°	585.5	625.1	664.6	674.5	870.2	1131.2	1261.6	1506.8	1997.1	2364.9	2410.3
122.5°	621.2	661.2	701.2	711.1	888.5	1125.0	1243.2	1464.0	1905.6	2236.8	2281.7
125°	676.1	712.6	749.0	758.1	913.2	1120.0	1223.4	1411.0	1786.1	2067.4	2108.7
127.5°	720.7	757.4	794.2	803.4	937.8	1117.1	1206.7	1367.7	1689.8	1931.3	1966.1
130°	744.5	784.1	823.7	833.6	955.8	1118.8	1200.3	1343.6	1630.4	1845.5	1877.6
132.5°	769.2	808.7	848.3	858.3	970.4	1120.0	1194.8	1323.1	1579.7	1772.2	1801.0
135°	805.8	841.8	878.0	887.0	986.4	1118.9	1185.2	1292.7	1507.6	1668.8	1693.7
137.5°	843.2	878.8	914.6	923.5	1010.2	1125.8	1183.6	1274.4	1456.2	1592.4	1612.8
140°	874.2	907.0	939.9	948.2	1024.8	1127.0	1178.0	1256.5	1413.5	1531.2	1550.3
142.5°	898.1	928.5	958.9	966.4	1037.0	1131.0	1178.0	1247.0	1384.9	1488.3	1504.7
145°	934.7	961.2	987.7	994.3	1053.0	1131.1	1170.1	1226.5	1339.2	1423.9	1436.2
147.5°	971.2	997.0	1022.8	1029.3	1076.3	1138.8	1170.1	1214.5	1303.2	1369.7	1380.0
150°	995.1	1018.4	1041.8	1047.6	1088.4	1142.8	1170.1	1207.6	1282.5	1338.8	1347.1
152.5°	1019.8	1037.5	1055.2	1059.6	1096.4	1145.5	1170.1	1202.1	1266.1	1314.1	1320.4
155°	1056.3	1069.4	1082.5	1085.8	1113.9	1151.4	1170.1	1195.5	1246.5	1284.6	1288.8
157.5°	1083.4	1096.1	1108.9	1112.1	1131.4	1157.2	1170.1	1189.9	1229.5	1259.2	1262.1
160°	1101.7	1111.7	1121.5	1124.0	1139.4	1159.9	1170.1	1187.1	1221.1	1246.5	1248.2
162.5°	1120.0	1127.4	1134.9	1136.7	1147.8	1162.6	1170.1	1184.4	1213.0	1234.5	1236.2
165°	1139.9	1146.6	1153.3	1155.0	1160.1	1166.7	1170.1	1180.3	1200.9	1216.3	1218.0
167.5°	1158.1	1161.3	1164.5	1165.3	1169.5	1175.2	1178.0	1184.7	1198.2	1208.2	1208.9
170°	1170.1	1173.2	1176.5	1177.3	1177.6	1177.8	1178.0	1184.7	1198.2	1208.2	1208.2
172.5°	1176.5	1177.2	1177.8	1178.0	1178.0	1178.0	1178.0	1183.4	1194.0	1201.9	1201.4
175°	1185.2	1185.2	1185.2	1185.2	1182.8	1179.7	1178.0	1181.4	1188.1	1193.1	1193.1
177.5°	1185.2	1185.2	1185.2	1185.2	1183.4	1180.9	1179.7	1182.3	1187.6	1191.6	1190.9
180°	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	398.8	<i>398.8</i>
2.5°	425.8	<i>423.2</i>
5°	547.6	<i>550.2</i>
7.5°	737.4	<i>736.2</i>
10°	917.0	<i>928.6</i>
12.5°	1047.8	<i>1050.4</i>
15°	1127.4	<i>1132.5</i>
17.5°	1158.1	<i>1159.4</i>
20°	1159.4	<i>1156.8</i>
22.5°	1145.3	<i>1142.7</i>
25°	1128.6	<i>1127.4</i>
27.5°	1113.2	<i>1114.5</i>
30°	1106.8	<i>1110.7</i>
32.5°	1106.8	<i>1113.2</i>
35°	1109.4	<i>1115.8</i>
37.5°	1108.1	<i>1115.8</i>
40°	1103.0	<i>1112.0</i>
42.5°	1088.9	<i>1095.3</i>
45°	1067.1	<i>1074.8</i>
47.5°	1038.8	<i>1044.0</i>
50°	1003.0	<i>1008.1</i>
52.5°	958.0	<i>959.3</i>
55°	904.2	<i>909.3</i>
57.5°	846.5	<i>847.8</i>
60°	782.4	<i>786.2</i>
62.5°	714.4	<i>714.4</i>
65°	642.6	<i>645.1</i>
67.5°	568.2	<i>574.6</i>
70°	492.5	<i>493.8</i>
72.5°	418.1	<i>418.1</i>
75°	341.2	<i>342.4</i>
77.5°	268.0	<i>268.0</i>
80°	198.8	<i>200.0</i>
82.5°	137.2	<i>139.8</i>
85°	86.0	<i>86.0</i>
87.5°	39.8	<i>36.0</i>
90°	30.2	<i>30.2</i>
92.5°	121.1	<i>97.1</i>
95°	422.1	<i>349.2</i>
97.5°	1011.2	<i>872.6</i>
100°	1457.0	<i>1291.8</i>
102.5°	1895.4	<i>1753.9</i>
105°	2454.4	<i>2378.3</i>
107.5°	2820.6	<i>2838.9</i>
110°	2960.2	<i>3039.4</i>





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2972.6	3094.2
115°	2893.8	3062.5
117.5°	2726.7	2913.7
120°	2592.0	2773.7
122.5°	2460.9	2640.0
125°	2273.7	2438.9
127.5°	2105.4	2244.8
130°	2006.3	2135.0
132.5°	1916.3	2031.5
135°	1793.1	1892.4
137.5°	1694.1	1775.5
140°	1626.2	1702.2
142.5°	1570.1	1635.5
145°	1485.7	1535.2
147.5°	1421.0	1462.0
150°	1380.3	1413.5
152.5°	1345.5	1370.5
155°	1305.4	1322.0
157.5°	1273.7	1285.4
160°	1254.9	1261.6
162.5°	1242.5	1248.9
165°	1224.7	1231.4
167.5°	1211.8	1214.7
170°	1208.2	1208.2
172.5°	1198.9	1196.4
175°	1193.1	1193.1
177.5°	1188.1	1185.2
180°	1185.2	1185.2



TEST NUMBER: P937448

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-6500K

**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	0.77	1.49	1.88	2.60	4.14	13.95	14.67	15.06	15.78	17.32
	3H	1.46	2.10	2.59	3.23	4.79	15.78	16.42	16.90	17.54	19.10
	4H	1.75	2.36	2.89	3.49	5.05	16.42	17.03	17.55	18.15	19.71
	6H	2.00	2.56	3.14	3.68	5.26	16.84	17.40	17.98	18.53	20.10
	8H	2.06	2.60	3.21	3.74	5.31	16.95	17.49	18.10	18.63	20.20
	12H	2.07	2.58	3.22	3.72	5.31	17.02	17.53	18.17	18.66	20.25
4H	2H	7.97	8.58	9.11	9.70	11.27	14.21	14.82	15.35	15.94	17.50
	3H	9.52	10.03	10.67	11.18	12.76	16.24	16.75	17.38	17.90	19.47
	4H	9.61	10.08	10.76	11.22	12.81	17.00	17.47	18.15	18.61	20.20
	6H	9.61	10.02	10.77	11.18	12.76	17.53	17.93	18.68	19.09	20.68
	8H	9.58	9.96	10.74	11.11	12.72	17.69	18.06	18.84	19.21	20.82
	12H	9.53	9.88	10.71	11.04	12.65	17.77	18.11	18.94	19.28	20.89
8H	4H	11.04	11.42	12.20	12.57	14.18	17.05	17.42	18.20	18.57	20.18
	6H	11.28	11.59	12.45	12.78	14.38	17.67	17.98	18.84	19.17	20.77
	8H	11.29	11.57	12.47	12.74	14.36	17.89	18.16	19.07	19.33	20.95
	12H	11.25	11.49	12.44	12.66	14.32	18.02	18.26	19.21	19.43	21.09
12H	4H	11.18	11.52	12.35	12.68	14.29	16.99	17.33	18.16	18.50	20.11
	6H	11.53	11.81	12.72	12.98	14.60	17.65	17.92	18.83	19.09	20.72
	8H	11.60	11.84	12.78	13.00	14.66	17.87	18.11	19.06	19.28	20.94