

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: P937228

Luminaire Tested: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

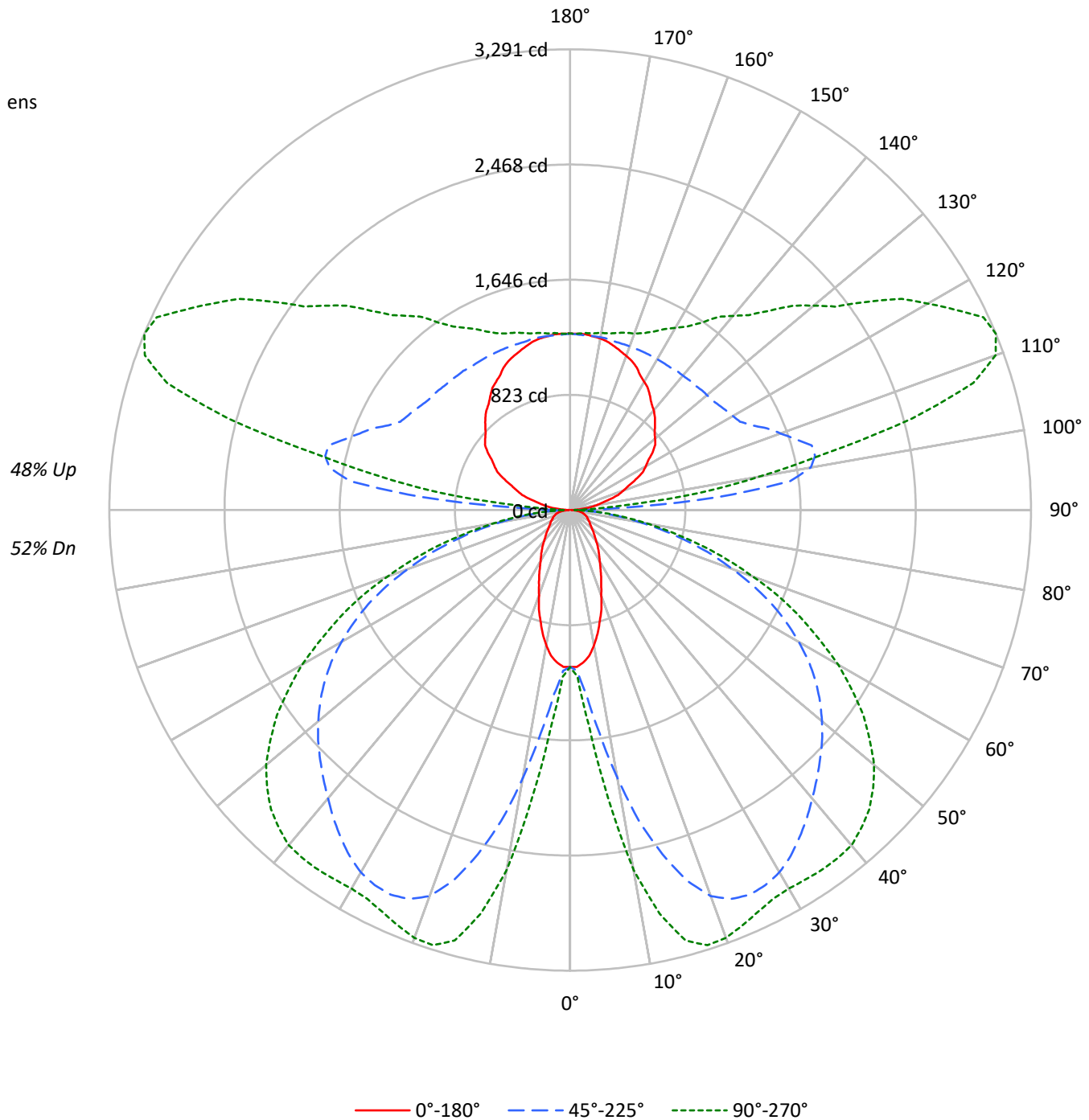
Test Method: LM-79-2019  
Report Number: P937228  
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16850.1 lumens  
Efficiency: N/A  
Efficacy: 109.7 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): 153.6  
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: P937228  
CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P937228

CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52				
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	42				
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	34				
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	28				
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	24				
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	20				
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	17				
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	15				
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	13				
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	12				
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	10				

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

	0°	45°	90°
0°	3468	3468	3468
5°	3390	4010	4662
10°	3076	5846	7729
15°	2615	7640	9332
20°	2129	8856	9511
25°	1777	9269	9318
30°	1499	9330	9300
35°	1326	9177	9540
40°	1156	8978	9789
45°	1048	8834	9828
50°	962	8704	9665
55°	922	8513	9236
60°	945	8143	8560
65°	985	7578	7630
70°	1052	6614	6446
75°	1171	5397	5031
80°	1288	3748	3389
85°	1166	1992	1735

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9828 cd/sqm



TEST NUMBER: P937228

CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.0	0.9
10°-20°	642.8	3.8
20°-30°	1124.4	6.7
30°-40°	1447.5	8.6
40°-50°	1616.8	9.6
50°-60°	1548.5	9.2
60°-70°	1227.2	7.3
70°-80°	721.6	4.3
80°-90°	205.3	1.2
90°-100°	614.4	3.6
100°-110°	1615.3	9.6
110°-120°	1674.9	9.9
120°-130°	1343.5	8.0
130°-140°	1054.2	6.3
140°-150°	809.1	4.8
150°-160°	582.7	3.5
160°-170°	356.5	2.1
170°-180°	120.5	0.7
0°-30°	1912.3	11.3
0°-40°	3359.8	19.9
0°-60°	6525.0	38.7
0°-90°	8679.1	51.5
90°-120°	3904.6	23.2
90°-150°	7111.4	42.2
90°-180°	8171.0	48.5
0°-180°	16850.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1092	1172	1320	1493	1547	101
15°	818	1511	2545	3086	3184	228
25°	523	1713	3032	3166	3169	241
35°	353	1637	2856	3018	3137	221
45°	242	1305	2524	2892	3021	187
55°	173	829	2142	2488	2556	158
65°	137	440	1590	1788	1814	136
75°	101	270	872	959	963	106
85°	36	83	216	238	242	38
90°	8	24	64	32	32	9
95°	81	318	1058	546	371	90
105°	291	441	1786	2711	2529	308
115°	517	628	1430	2853	3257	510
125°	719	806	1301	2199	2594	638
135°	857	943	1260	1775	2012	663
145°	994	1058	1244	1514	1633	623
155°	1123	1155	1244	1366	1406	516
165°	1212	1228	1244	1293	1310	342
175°	1260	1260	1253	1269	1269	120
180°	1260	1260	1260	1260	1260	



TEST NUMBER: P937228

CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3
2.5°	1121.3	1121.3	1128.5	1132.1	1139.3	1143.0	1150.1	1157.3	1179.0	1182.6	1189.8
5°	1092.5	1106.8	1153.8	1171.8	1222.3	1290.8	1319.6	1366.5	1463.8	1492.6	1510.6
7.5°	1049.2	1081.6	1197.0	1225.8	1352.0	1532.3	1608.1	1708.9	1864.0	1939.7	2001.0
10°	980.7	1049.2	1254.7	1323.2	1528.7	1802.7	1943.3	2084.0	2318.3	2422.8	2462.5
12.5°	905.0	1016.7	1316.0	1409.8	1705.4	2105.5	2275.0	2430.1	2696.9	2837.5	2859.1
15°	818.4	969.9	1373.6	1510.6	1892.9	2358.0	2545.4	2736.6	2985.3	3086.2	3111.5
17.5°	742.7	933.8	1427.8	1571.9	2037.0	2585.1	2776.2	2934.9	3136.7	3205.2	3223.3
20°	648.9	876.2	1463.8	1651.3	2188.5	2750.9	2934.9	3057.4	3194.4	3237.7	3244.9
22.5°	580.4	814.9	1485.4	1680.1	2289.5	2851.9	3006.9	3104.3	3198.0	3212.5	3216.0
25°	522.8	746.4	1481.8	1712.6	2376.0	2913.2	3032.2	3104.3	3158.4	3165.5	3165.5
27.5°	468.7	670.6	1467.4	1719.8	2440.9	2927.6	3021.4	3071.8	3097.0	3111.5	3111.5
30°	421.8	598.5	1431.3	1705.4	2469.8	2913.2	2988.9	3014.2	3039.4	3061.0	3071.8
32.5°	385.8	530.0	1377.3	1676.6	2473.3	2877.2	2931.2	2945.7	2981.7	3032.2	3050.2
35°	353.3	461.5	1316.0	1636.9	2451.7	2819.4	2855.5	2869.9	2942.0	3017.7	3043.0
37.5°	320.9	411.1	1236.7	1568.4	2419.3	2750.9	2776.2	2801.4	2913.2	3003.3	3032.2
40°	288.4	367.8	1143.0	1492.6	2368.8	2668.1	2689.6	2729.3	2877.2	2981.7	3010.5
42.5°	263.2	331.7	1042.0	1413.3	2303.8	2574.3	2606.7	2664.4	2833.9	2945.7	2978.1
45°	241.6	295.6	933.8	1305.1	2221.0	2476.9	2523.8	2603.1	2783.4	2891.6	2920.4
47.5°	220.0	270.4	822.0	1193.4	2130.8	2379.6	2440.9	2531.0	2714.9	2819.4	2844.7
50°	201.9	245.1	710.2	1074.5	2033.5	2275.0	2347.1	2440.9	2628.4	2725.7	2758.2
52.5°	187.5	223.5	605.7	955.5	1921.7	2166.8	2249.8	2347.1	2523.8	2617.6	2639.2
55°	173.1	205.5	515.6	829.2	1806.4	2051.5	2141.6	2235.3	2408.4	2487.8	2502.1
57.5°	165.8	191.1	439.9	710.2	1683.7	1921.7	2022.7	2109.2	2271.5	2332.7	2347.1
60°	155.0	180.3	382.1	609.3	1550.3	1799.1	1885.7	1972.2	2109.2	2159.7	2170.5
62.5°	144.2	173.1	338.9	511.9	1413.3	1654.9	1741.4	1820.7	1936.2	1972.2	1986.6
65°	137.0	165.8	306.5	439.9	1272.8	1503.4	1590.0	1658.5	1752.2	1788.3	1795.5
67.5°	129.8	158.6	281.3	378.6	1132.1	1352.0	1416.9	1481.8	1553.9	1590.0	1593.6
70°	119.0	151.5	259.6	335.3	987.9	1179.0	1233.1	1301.6	1359.3	1377.3	1388.1
72.5°	111.8	140.6	245.1	302.8	840.0	1013.2	1063.6	1103.3	1153.8	1171.8	1171.8
75°	101.0	126.2	230.8	270.4	688.6	829.2	872.5	912.2	951.8	959.0	948.2
77.5°	90.1	111.8	198.3	227.1	537.2	656.2	692.2	713.9	746.4	753.5	757.2
80°	75.7	97.3	155.0	176.7	389.4	483.1	508.4	526.4	555.2	555.2	562.4
82.5°	57.7	75.7	111.8	126.2	263.2	331.7	353.3	364.1	382.1	382.1	382.1
85°	36.0	46.8	72.1	83.0	158.6	201.9	216.3	220.0	234.3	238.0	238.0
87.5°	18.0	25.2	46.8	50.5	83.0	104.5	104.5	111.8	111.8	108.2	104.5
90°	8.5	15.2	21.9	23.7	37.2	55.3	64.3	57.1	42.8	32.1	32.1
92.5°	33.8	91.3	148.9	163.3	229.5	317.8	362.0	317.3	227.9	160.7	154.4
95°	81.2	186.5	291.8	318.1	564.8	893.8	1058.3	944.4	716.5	545.6	526.2
97.5°	140.4	233.3	326.2	349.4	760.8	1309.3	1583.6	1511.5	1367.5	1259.6	1222.7
100°	186.1	270.3	354.6	375.6	832.1	1440.8	1745.1	1750.4	1761.0	1768.9	1724.9
102.5°	225.0	303.6	382.1	401.8	864.8	1482.2	1790.9	1882.6	2066.1	2203.7	2166.1
105°	291.0	357.6	424.1	440.7	889.1	1486.9	1785.8	1991.5	2402.8	2711.3	2691.1
107.5°	358.7	420.7	482.7	498.3	893.6	1420.8	1684.3	1971.2	2544.9	2975.1	2980.1
110°	404.3	460.4	516.4	530.4	886.8	1362.1	1599.7	1920.4	2561.8	3042.8	3063.8



TEST NUMBER: P937228

CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	449.2	502.6	556.0	569.3	887.2	1310.9	1522.7	1850.9	2507.4	2999.7	3032.0
115°	516.9	566.1	615.4	627.6	895.3	1252.1	1430.5	1746.7	2379.1	2853.3	2898.2
117.5°	583.7	628.5	673.1	684.3	911.9	1215.3	1367.0	1652.4	2223.1	2651.1	2700.9
120°	622.6	664.8	706.8	717.3	925.5	1202.9	1341.6	1602.3	2123.8	2515.0	2563.3
122.5°	660.7	703.1	745.6	756.3	944.9	1196.4	1322.2	1556.9	2026.6	2378.8	2426.5
125°	719.1	757.8	796.6	806.2	971.1	1191.1	1301.1	1500.5	1899.4	2198.6	2242.5
127.5°	766.5	805.6	844.7	854.4	997.4	1188.0	1283.3	1454.6	1797.1	2054.0	2091.0
130°	791.8	834.0	876.0	886.5	1016.5	1189.8	1276.5	1428.9	1733.9	1962.5	1996.7
132.5°	818.0	860.2	902.2	912.7	1032.0	1191.1	1270.6	1407.0	1680.0	1884.8	1915.4
135°	857.0	895.3	933.7	943.2	1049.0	1190.0	1260.5	1374.7	1603.3	1774.8	1801.2
137.5°	896.7	934.7	972.7	982.1	1074.4	1197.3	1258.8	1355.4	1548.7	1693.6	1715.2
140°	929.6	964.6	999.6	1008.3	1089.8	1198.5	1252.8	1336.3	1503.3	1628.4	1648.6
142.5°	955.0	987.4	1019.7	1027.8	1102.8	1202.8	1252.8	1326.2	1472.8	1582.8	1600.1
145°	994.0	1022.2	1050.4	1057.5	1119.8	1202.8	1244.4	1304.3	1424.3	1514.3	1527.5
147.5°	1032.9	1060.4	1087.8	1094.7	1144.6	1211.1	1244.4	1291.6	1385.9	1456.7	1467.6
150°	1058.3	1083.1	1107.9	1114.1	1157.5	1215.5	1244.4	1284.2	1363.9	1423.7	1432.5
152.5°	1084.5	1103.3	1122.0	1126.8	1166.0	1218.3	1244.4	1278.4	1346.4	1397.5	1404.1
155°	1123.4	1137.3	1151.2	1154.7	1184.6	1224.5	1244.4	1271.5	1325.6	1366.2	1370.6
157.5°	1152.1	1165.7	1179.3	1182.6	1203.2	1230.6	1244.4	1265.4	1307.5	1339.1	1342.2
160°	1171.6	1182.2	1192.7	1195.4	1211.7	1233.5	1244.4	1262.4	1298.5	1325.6	1327.4
162.5°	1191.1	1199.0	1206.8	1208.8	1220.6	1236.5	1244.4	1259.6	1290.0	1312.9	1314.6
165°	1212.3	1219.4	1226.5	1228.3	1233.6	1240.8	1244.4	1255.3	1277.0	1293.4	1295.2
167.5°	1231.6	1235.0	1238.5	1239.3	1243.8	1249.8	1252.8	1259.9	1274.2	1285.0	1285.7
170°	1244.4	1247.7	1251.2	1252.0	1252.3	1252.7	1252.8	1259.9	1274.2	1285.0	1285.0
172.5°	1251.1	1251.8	1252.7	1252.8	1252.8	1252.8	1252.8	1258.5	1269.8	1278.2	1277.6
175°	1260.5	1260.5	1260.5	1260.5	1257.9	1254.6	1252.8	1256.4	1263.6	1268.9	1268.9
177.5°	1260.5	1260.5	1260.5	1260.5	1258.5	1255.8	1254.6	1257.4	1263.0	1267.2	1266.5
180°	1260.5	1260.5	1260.5	1260.5	1260.5	1260.5	1260.5	1260.5	1260.5	1260.5	1260.5



TEST NUMBER: P937228

CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1121.3	1121.3
2.5°	1197.0	1189.8
5°	1539.6	1546.7
7.5°	2073.2	2069.5
10°	2577.9	2610.3
12.5°	2945.7	2952.9
15°	3169.2	3183.6
17.5°	3255.7	3259.3
20°	3259.3	3252.1
22.5°	3219.7	3212.5
25°	3172.8	3169.2
27.5°	3129.5	3133.2
30°	3111.5	3122.3
32.5°	3111.5	3129.5
35°	3118.7	3136.7
37.5°	3115.1	3136.7
40°	3100.7	3125.9
42.5°	3061.0	3079.0
45°	2999.7	3021.4
47.5°	2920.4	2934.9
50°	2819.4	2833.9
52.5°	2693.3	2696.9
55°	2541.8	2556.3
57.5°	2379.6	2383.2
60°	2199.3	2210.1
62.5°	2008.2	2008.2
65°	1806.4	1813.5
67.5°	1597.2	1615.2
70°	1384.5	1388.1
72.5°	1175.3	1175.3
75°	959.0	962.7
77.5°	753.5	753.5
80°	558.9	562.4
82.5°	385.8	393.0
85°	241.6	241.6
87.5°	111.8	101.0
90°	32.1	32.1
92.5°	128.8	103.2
95°	448.8	371.4
97.5°	1075.4	928.0
100°	1549.4	1373.8
102.5°	2015.7	1865.3
105°	2610.2	2529.3
107.5°	2999.6	3019.2
110°	3148.1	3232.3





TEST NUMBER: P937228

CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3161.4	3290.7
115°	3077.5	3256.9
117.5°	2899.7	3098.7
120°	2756.6	2949.8
122.5°	2617.0	2807.7
125°	2418.1	2593.6
127.5°	2239.2	2387.3
130°	2133.6	2270.5
132.5°	2038.0	2160.6
135°	1906.9	2012.5
137.5°	1801.6	1888.1
140°	1729.5	1810.3
142.5°	1669.7	1739.2
145°	1580.0	1632.6
147.5°	1511.2	1554.8
150°	1467.9	1503.3
152.5°	1430.9	1457.5
155°	1388.3	1405.9
157.5°	1354.6	1367.0
160°	1334.5	1341.6
162.5°	1321.3	1328.2
165°	1302.3	1309.5
167.5°	1288.8	1291.8
170°	1285.0	1285.0
172.5°	1274.9	1272.3
175°	1268.9	1268.9
177.5°	1263.5	1260.5
180°	1260.5	1260.5



TEST NUMBER: P937228  
 CATALOG NUMBER: SQ4-FB-075U-100D-92765-1D-UNV-STD-W-12-4000K

**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	5.47	6.38	6.40	7.34	8.59	18.66	19.57	19.60	20.53	21.78
	3H	6.18	7.00	7.12	7.97	9.24	20.51	21.33	21.46	22.30	23.57
	4H	6.48	7.26	7.44	8.23	9.51	21.16	21.94	22.12	22.91	24.19
	6H	6.73	7.45	7.70	8.43	9.72	21.60	22.32	22.57	23.29	24.59
	8H	6.80	7.49	7.78	8.48	9.77	21.72	22.41	22.70	23.40	24.69
	12H	6.82	7.47	7.81	8.46	9.78	21.80	22.45	22.78	23.44	24.75
4H	2H	12.70	13.48	13.67	14.45	15.73	18.94	19.72	19.91	20.69	21.97
	3H	14.27	14.92	15.25	15.92	17.22	21.00	21.65	21.97	22.65	23.94
	4H	14.37	14.96	15.35	15.96	17.27	21.77	22.37	22.76	23.36	24.68
	6H	14.38	14.90	15.38	15.92	17.23	22.32	22.83	23.31	23.85	25.16
	8H	14.36	14.84	15.36	15.85	17.18	22.48	22.96	23.48	23.98	25.31
	12H	14.32	14.75	15.34	15.78	17.12	22.58	23.02	23.60	24.05	25.38
8H	4H	15.82	16.30	16.82	17.31	18.64	21.83	22.32	22.83	23.33	24.66
	6H	16.06	16.46	17.09	17.52	18.84	22.47	22.87	23.50	23.92	25.25
	8H	16.08	16.44	17.12	17.48	18.82	22.69	23.05	23.73	24.09	25.43
	12H	16.05	16.36	17.09	17.40	18.79	22.84	23.15	23.88	24.19	25.58
12H	4H	15.97	16.40	16.99	17.43	18.77	21.79	22.23	22.81	23.25	24.59
	6H	16.33	16.68	17.36	17.72	19.06	22.45	22.81	23.49	23.85	25.19
	8H	16.40	16.71	17.44	17.74	19.13	22.69	23.00	23.73	24.03	25.42