

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: P937466

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937466
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-93050-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

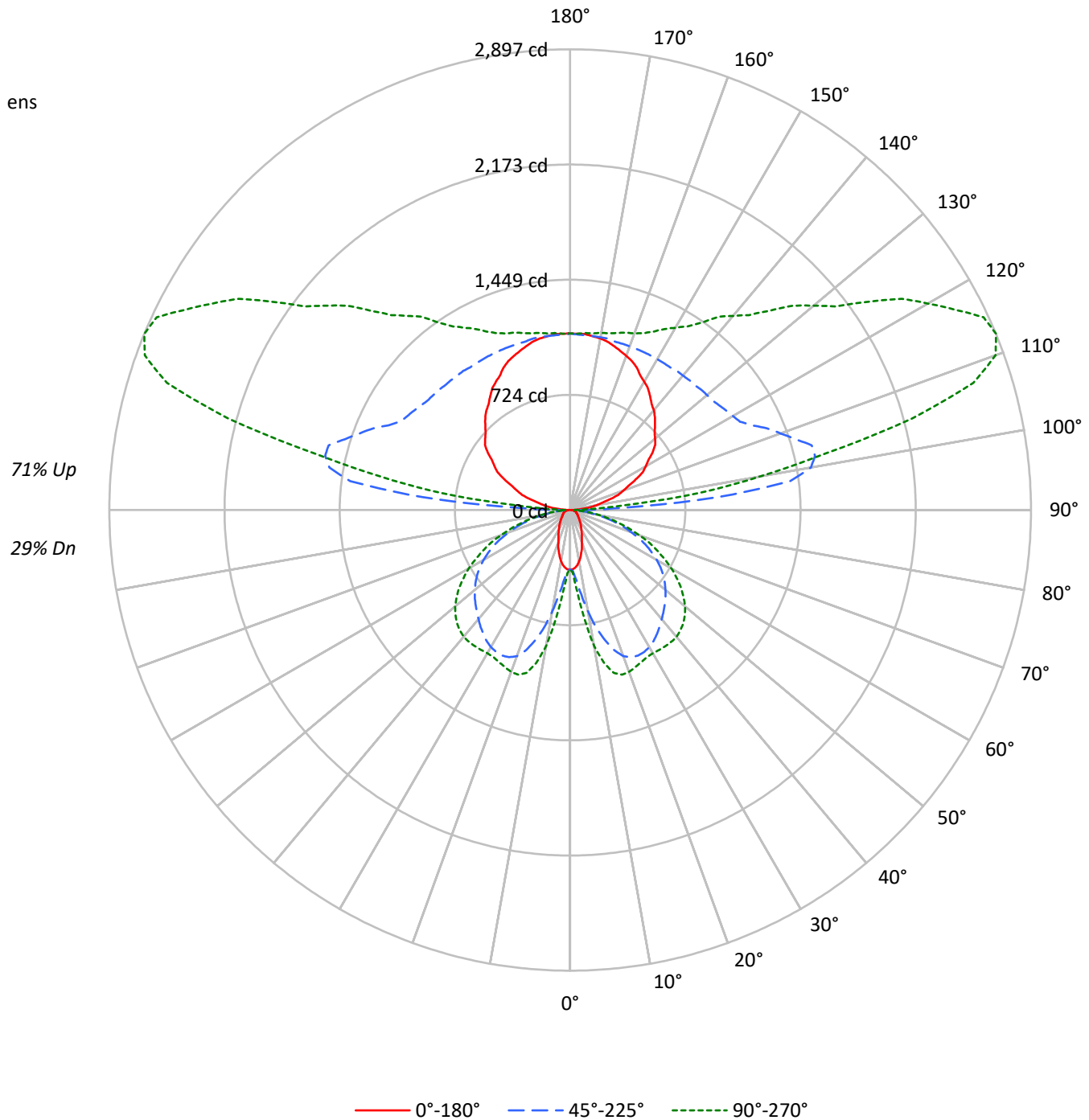
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10087.5 lumens
Efficiency: N/A
Efficacy: 122.4 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: Semi-Indirect

Input Watts (W): 82.4
Input Voltage (V): NR
Input Current (A_{in}): 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: P937466
CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P937466

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1732	1732	1732
5°	1693	2003	2329
10°	1535	2919	3861
15°	1305	3814	4663
20°	1062	4420	4751
25°	886	4625	4655
30°	747	4654	4647
35°	660	4577	4766
40°	576	4476	4891
45°	522	4403	4910
50°	478	4337	4829
55°	459	4240	4614
60°	470	4054	4276
65°	489	3771	3813
70°	521	3288	3220
75°	577	2681	2513
80°	629	1859	1693
85°	559	987	867

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4910 cd/sqm



TEST NUMBER: P937466

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	0.5
10°-20°	214.1	2.1
20°-30°	374.5	3.7
30°-40°	482.1	4.8
40°-50°	538.5	5.3
50°-60°	515.8	5.1
60°-70°	408.8	4.1
70°-80°	240.3	2.4
80°-90°	71.0	0.7
90°-100°	541.0	5.4
100°-110°	1422.2	14.1
110°-120°	1474.7	14.6
120°-130°	1182.9	11.7
130°-140°	928.1	9.2
140°-150°	712.4	7.1
150°-160°	513.0	5.1
160°-170°	313.9	3.1
170°-180°	106.0	1.1
0°-30°	636.9	6.3
0°-40°	1119.0	11.1
0°-60°	2173.3	21.5
0°-90°	2893.4	28.7
90°-120°	3437.8	34.1
90°-150°	6261.1	62.1
90°-180°	7194.0	71.3
0°-180°	10087.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	364	390	440	497	515	34
15°	273	503	848	1028	1060	76
25°	174	570	1010	1054	1056	80
35°	118	545	951	1005	1045	73
45°	80	435	841	963	1006	62
55°	58	276	713	829	851	53
65°	46	146	530	596	604	45
75°	34	90	291	319	321	35
85°	12	28	72	79	80	13
90°	7	21	57	28	28	7
95°	72	280	932	480	327	79
105°	256	388	1572	2387	2227	272
115°	455	553	1259	2512	2868	449
125°	633	710	1146	1936	2284	562
135°	754	830	1110	1563	1772	584
145°	875	931	1096	1333	1437	548
155°	989	1017	1096	1203	1238	454
165°	1067	1081	1096	1139	1153	301
175°	1110	1110	1103	1117	1117	105
180°	1110	1110	1110	1110	1110	



TEST NUMBER: P937466

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4
2.5°	373.4	373.4	375.9	377.1	379.4	380.7	383.1	385.5	392.7	393.8	396.3
5°	363.9	368.7	384.3	390.3	407.1	429.9	439.5	455.1	487.6	497.2	503.2
7.5°	349.4	360.3	398.7	408.3	450.3	510.3	535.6	569.2	620.8	646.1	666.5
10°	326.6	349.4	417.9	440.8	509.2	600.4	647.3	694.1	772.1	806.9	820.2
12.5°	301.5	338.6	438.3	469.5	568.0	701.3	757.8	809.4	898.3	945.1	952.3
15°	272.6	323.0	457.5	503.2	630.5	785.4	847.9	911.4	994.3	1027.9	1036.3
17.5°	247.4	311.0	475.6	523.6	678.5	861.0	924.7	977.5	1044.7	1067.6	1073.6
20°	216.1	291.8	487.6	550.0	729.0	916.3	977.5	1018.3	1064.0	1078.4	1080.8
22.5°	193.3	271.4	494.7	559.6	762.5	949.9	1001.5	1034.0	1065.2	1070.0	1071.2
25°	174.1	248.5	493.6	570.4	791.4	970.3	1009.9	1034.0	1052.0	1054.4	1054.4
27.5°	156.1	223.4	488.8	572.8	813.0	975.1	1006.3	1023.2	1031.6	1036.3	1036.3
30°	140.5	199.4	476.8	568.0	822.6	970.3	995.5	1003.9	1012.3	1019.6	1023.2
32.5°	128.5	176.6	458.8	558.4	823.8	958.3	976.3	981.1	993.1	1009.9	1015.9
35°	117.6	153.7	438.3	545.2	816.6	939.1	951.1	955.9	979.9	1005.2	1013.5
37.5°	106.9	136.9	411.9	522.4	805.8	916.3	924.7	933.1	970.3	1000.3	1009.9
40°	96.1	122.5	380.7	497.2	788.9	888.7	895.8	909.1	958.3	993.1	1002.7
42.5°	87.7	110.5	347.0	470.8	767.4	857.4	868.3	887.4	943.9	981.1	991.9
45°	80.5	98.5	311.0	434.7	739.7	825.0	840.6	867.0	927.1	963.1	972.7
47.5°	73.2	90.1	273.8	397.5	709.7	792.6	813.0	843.0	904.3	939.1	947.5
50°	67.2	81.7	236.5	357.9	677.3	757.8	781.8	813.0	875.4	907.8	918.7
52.5°	62.4	74.5	201.7	318.2	640.1	721.7	749.4	781.8	840.6	871.9	879.0
55°	57.7	68.5	171.7	276.2	601.6	683.3	713.3	744.5	802.2	828.6	833.4
57.5°	55.2	63.7	146.5	236.5	560.8	640.1	673.7	702.6	756.5	777.0	781.8
60°	51.7	60.1	127.3	203.0	516.4	599.2	628.1	656.9	702.6	719.3	723.0
62.5°	48.1	57.7	112.9	170.6	470.8	551.2	580.0	606.5	644.9	656.9	661.7
65°	45.7	55.2	102.1	146.5	423.9	500.7	529.6	552.4	583.7	595.7	598.1
67.5°	43.2	52.8	93.6	126.1	377.1	450.3	471.9	493.6	517.6	529.6	530.7
70°	39.7	50.4	86.5	111.6	329.0	392.7	410.7	433.5	452.8	458.8	462.3
72.5°	37.2	46.8	81.7	100.9	279.8	337.4	354.3	367.4	384.3	390.3	390.3
75°	33.7	42.0	76.8	90.1	229.4	276.2	290.6	303.8	317.0	319.4	315.9
77.5°	30.0	37.2	66.1	75.7	179.0	218.5	230.5	237.8	248.5	251.0	252.2
80°	25.2	32.4	51.7	58.8	129.7	160.9	169.3	175.3	185.0	185.0	187.3
82.5°	19.2	25.2	37.2	42.0	87.7	110.5	117.6	121.3	127.3	127.3	127.3
85°	12.0	15.6	24.0	27.6	52.8	67.2	72.1	73.2	78.1	79.2	79.2
87.5°	6.0	8.4	15.6	16.8	27.6	34.8	34.8	37.2	37.2	36.0	34.8
90°	7.4	13.4	19.3	20.9	32.8	48.6	56.6	50.3	37.7	28.3	28.3
92.5°	29.8	80.5	131.2	143.8	202.1	279.9	318.7	279.3	200.6	141.5	135.9
95°	71.5	164.2	256.9	280.1	497.3	786.9	931.8	831.5	630.8	480.4	463.4
97.5°	123.6	205.4	287.2	307.6	669.9	1152.8	1394.3	1330.9	1204.1	1109.0	1076.6
100°	163.8	238.0	312.2	330.7	732.6	1268.6	1536.5	1541.2	1550.4	1557.4	1518.7
102.5°	198.1	267.3	336.5	353.7	761.4	1304.9	1576.7	1657.5	1819.1	1940.2	1907.1
105°	256.2	314.8	373.3	388.0	782.8	1309.1	1572.3	1753.3	2115.4	2387.1	2369.3
107.5°	315.8	370.4	425.0	438.7	786.8	1250.8	1482.9	1735.5	2240.6	2619.4	2623.7
110°	356.0	405.3	454.6	467.0	780.8	1199.2	1408.4	1690.8	2255.5	2679.0	2697.6



TEST NUMBER: P937466

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	395.5	442.5	489.6	501.3	781.1	1154.1	1340.6	1629.6	2207.6	2641.1	2669.6
115°	455.1	498.4	541.8	552.7	788.2	1102.4	1259.4	1537.9	2094.7	2512.2	2551.7
117.5°	513.9	553.3	592.7	602.5	802.9	1070.0	1203.6	1454.8	1957.3	2334.2	2377.9
120°	548.2	585.3	622.3	631.6	814.8	1059.2	1181.3	1410.8	1869.9	2214.3	2256.8
122.5°	581.7	619.1	656.5	665.8	831.9	1053.3	1164.1	1370.8	1784.3	2094.4	2136.4
125°	633.1	667.2	701.3	709.8	855.0	1048.7	1145.5	1321.1	1672.4	1935.8	1974.4
127.5°	674.8	709.2	743.6	752.2	878.1	1046.0	1129.9	1280.7	1582.2	1808.4	1840.9
130°	697.1	734.2	771.2	780.5	895.0	1047.6	1123.9	1258.1	1526.6	1728.0	1758.0
132.5°	720.2	757.3	794.3	803.6	908.7	1048.7	1118.7	1238.8	1479.1	1659.4	1686.3
135°	754.5	788.2	822.1	830.5	923.6	1047.7	1109.7	1210.4	1411.6	1562.6	1585.9
137.5°	789.5	822.9	856.4	864.7	945.9	1054.1	1108.2	1193.3	1363.5	1491.1	1510.1
140°	818.5	849.3	880.1	887.8	959.5	1055.2	1103.0	1176.5	1323.5	1433.8	1451.6
142.5°	840.9	869.3	897.8	904.9	971.0	1059.0	1103.0	1167.6	1296.7	1393.6	1408.9
145°	875.2	900.0	924.9	931.0	985.9	1059.1	1095.6	1148.4	1254.0	1333.2	1344.8
147.5°	909.4	933.5	957.7	963.8	1007.8	1066.3	1095.6	1137.1	1220.2	1282.5	1292.1
150°	931.8	953.6	975.4	980.9	1019.1	1070.1	1095.6	1130.7	1200.9	1253.5	1261.3
152.5°	954.9	971.4	988.0	992.1	1026.6	1072.6	1095.6	1125.6	1185.5	1230.4	1236.3
155°	989.1	1001.3	1013.6	1016.6	1042.9	1078.0	1095.6	1119.4	1167.1	1202.9	1206.7
157.5°	1014.4	1026.3	1038.3	1041.2	1059.3	1083.5	1095.6	1114.1	1151.2	1179.0	1181.7
160°	1031.6	1040.9	1050.1	1052.4	1066.9	1086.0	1095.6	1111.5	1143.3	1167.1	1168.7
162.5°	1048.7	1055.7	1062.6	1064.3	1074.7	1088.6	1095.6	1109.0	1135.8	1155.9	1157.5
165°	1067.3	1073.6	1079.8	1081.4	1086.2	1092.5	1095.6	1105.2	1124.4	1138.8	1140.4
167.5°	1084.4	1087.4	1090.4	1091.1	1095.1	1100.3	1103.0	1109.3	1121.9	1131.3	1131.9
170°	1095.6	1098.5	1101.6	1102.3	1102.6	1102.8	1103.0	1109.3	1121.9	1131.3	1131.3
172.5°	1101.6	1102.2	1102.8	1103.0	1103.0	1103.0	1103.0	1108.0	1118.0	1125.4	1124.9
175°	1109.7	1109.7	1109.7	1109.7	1107.5	1104.5	1103.0	1106.2	1112.4	1117.2	1117.2
177.5°	1109.7	1109.7	1109.7	1109.7	1108.0	1105.7	1104.5	1107.1	1112.0	1115.7	1115.1
180°	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7



TEST NUMBER: P937466

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	373.4	373.4
2.5°	398.7	396.3
5°	512.7	515.2
7.5°	690.5	689.3
10°	858.6	869.4
12.5°	981.1	983.5
15°	1055.6	1060.4
17.5°	1084.4	1085.6
20°	1085.6	1083.1
22.5°	1072.4	1070.0
25°	1056.7	1055.6
27.5°	1042.3	1043.6
30°	1036.3	1040.0
32.5°	1036.3	1042.3
35°	1038.7	1044.7
37.5°	1037.6	1044.7
40°	1032.7	1041.2
42.5°	1019.6	1025.6
45°	999.2	1006.3
47.5°	972.7	977.5
50°	939.1	943.9
52.5°	897.0	898.3
55°	846.6	851.4
57.5°	792.6	793.8
60°	732.5	736.1
62.5°	668.9	668.9
65°	601.6	604.1
67.5°	532.0	538.0
70°	461.2	462.3
72.5°	391.5	391.5
75°	319.4	320.6
77.5°	251.0	251.0
80°	186.1	187.3
82.5°	128.5	130.9
85°	80.5	80.5
87.5°	37.2	33.7
90°	28.3	28.3
92.5°	113.4	90.9
95°	395.2	327.0
97.5°	946.8	817.1
100°	1364.2	1209.6
102.5°	1774.7	1642.3
105°	2298.1	2226.9
107.5°	2641.0	2658.2
110°	2771.7	2845.8



TEST NUMBER: P937466

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2783.3	2897.2
115°	2709.6	2867.5
117.5°	2553.1	2728.2
120°	2427.0	2597.1
122.5°	2304.2	2472.0
125°	2129.0	2283.6
127.5°	1971.4	2101.8
130°	1878.5	1999.1
132.5°	1794.3	1902.2
135°	1678.9	1771.9
137.5°	1586.2	1662.4
140°	1522.7	1593.8
142.5°	1470.1	1531.3
145°	1391.1	1437.4
147.5°	1330.5	1368.9
150°	1292.4	1323.5
152.5°	1259.8	1283.3
155°	1222.3	1237.9
157.5°	1192.6	1203.6
160°	1175.0	1181.3
162.5°	1163.4	1169.4
165°	1146.7	1153.0
167.5°	1134.6	1137.3
170°	1131.3	1131.3
172.5°	1122.5	1120.2
175°	1117.2	1117.2
177.5°	1112.4	1109.7
180°	1109.7	1109.7



TEST NUMBER: P937466
 CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3500K

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	0.54	1.26	1.66	2.37	3.92	13.72	14.44	14.84	15.55	17.10
	3H	1.24	1.88	2.36	3.00	4.56	15.55	16.19	16.67	17.31	18.87
	4H	1.53	2.14	2.66	3.26	4.83	16.19	16.80	17.32	17.92	19.49
	6H	1.77	2.33	2.91	3.46	5.03	16.61	17.17	17.75	18.30	19.88
	8H	1.83	2.37	2.98	3.51	5.08	16.73	17.26	17.87	18.40	19.97
	12H	1.84	2.35	2.99	3.49	5.08	16.79	17.30	17.94	18.43	20.03
4H	2H	7.74	8.35	8.88	9.47	11.04	13.98	14.59	15.12	15.71	17.28
	3H	9.29	9.80	10.44	10.95	12.53	16.01	16.52	17.16	17.67	19.25
	4H	9.38	9.85	10.53	10.99	12.59	16.77	17.24	17.92	18.38	19.97
	6H	9.38	9.79	10.54	10.95	12.53	17.30	17.70	18.46	18.86	20.45
	8H	9.36	9.73	10.51	10.88	12.49	17.46	17.83	18.61	18.99	20.59
	12H	9.31	9.65	10.48	10.81	12.42	17.54	17.89	18.72	19.05	20.66
8H	4H	10.81	11.19	11.97	12.34	13.95	16.82	17.19	17.97	18.35	19.95
	6H	11.05	11.36	12.22	12.55	14.16	17.44	17.75	18.62	18.94	20.55
	8H	11.06	11.34	12.25	12.51	14.13	17.66	17.93	18.84	19.10	20.72
	12H	11.03	11.26	12.21	12.43	14.09	17.79	18.03	18.98	19.20	20.86
12H	4H	10.95	11.29	12.12	12.45	14.06	16.76	17.10	17.93	18.27	19.88
	6H	11.31	11.58	12.49	12.75	14.37	17.42	17.69	18.60	18.86	20.49
	8H	11.37	11.61	12.55	12.78	14.43	17.64	17.88	18.83	19.05	20.71