

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: P937420

Luminaire Tested: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937420
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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

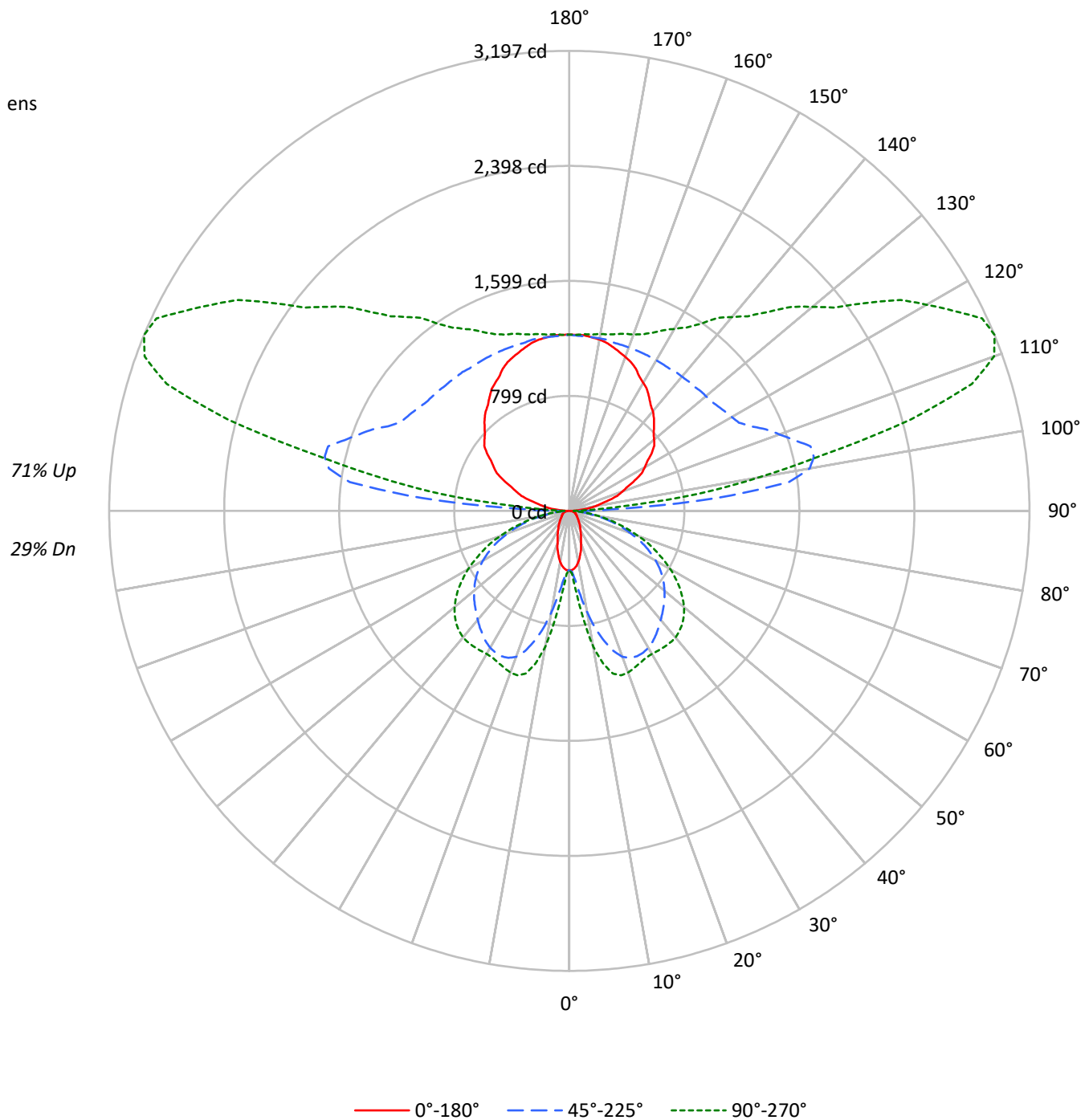
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11131.8 lumens
Efficiency: N/A
Efficacy: 135.1 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: P937420
CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P937420

CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

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	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°	1912	1912	1912
5°	1868	2210	2570
10°	1694	3222	4261
15°	1440	4209	5145
20°	1172	4877	5244
25°	978	5104	5137
30°	824	5136	5128
35°	729	5051	5260
40°	635	4940	5397
45°	575	4859	5418
50°	528	4786	5328
55°	505	4679	5092
60°	518	4474	4719
65°	539	4161	4207
70°	574	3629	3554
75°	635	2959	2773
80°	696	2051	1869
85°	615	1088	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5418 cd/sqm



TEST NUMBER: P937420

CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	0.5
10°-20°	236.3	2.1
20°-30°	413.3	3.7
30°-40°	532.0	4.8
40°-50°	594.3	5.3
50°-60°	569.2	5.1
60°-70°	451.1	4.1
70°-80°	265.2	2.4
80°-90°	78.3	0.7
90°-100°	597.0	5.4
100°-110°	1569.4	14.1
110°-120°	1627.3	14.6
120°-130°	1305.3	11.7
130°-140°	1024.2	9.2
140°-150°	786.1	7.1
150°-160°	566.1	5.1
160°-170°	346.4	3.1
170°-180°	117.0	1.1
0°-30°	702.9	6.3
0°-40°	1234.9	11.1
0°-60°	2398.3	21.5
0°-90°	3193.0	28.7
90°-120°	3793.7	34.1
90°-150°	6909.3	62.1
90°-180°	7939.0	71.3
0°-180°	11131.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	402	431	485	549	568	37
15°	301	555	936	1134	1170	84
25°	192	630	1114	1164	1165	89
35°	130	602	1050	1109	1153	81
45°	89	480	928	1063	1110	69
55°	64	305	787	914	940	58
65°	50	162	584	657	667	50
75°	37	99	321	352	354	39
85°	13	30	80	87	89	14
90°	8	23	62	31	31	8
95°	79	309	1028	530	361	88
105°	283	428	1735	2634	2458	300
115°	502	610	1390	2772	3164	496
125°	699	783	1264	2136	2520	620
135°	833	916	1225	1724	1955	644
145°	966	1027	1209	1471	1586	605
155°	1091	1122	1209	1327	1366	502
165°	1178	1193	1209	1257	1272	332
175°	1225	1225	1217	1233	1233	116
180°	1225	1225	1225	1225	1225	



TEST NUMBER: P937420

CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	412.1	412.1	414.8	416.1	418.7	420.1	422.8	425.4	433.3	434.6	437.3
5°	401.5	406.9	424.0	430.7	449.2	474.4	485.0	502.2	538.1	548.6	555.3
7.5°	385.6	397.6	440.0	450.5	497.0	563.2	591.0	628.2	685.1	712.9	735.5
10°	360.4	385.6	461.2	486.4	561.9	662.6	714.3	766.0	852.1	890.5	905.1
12.5°	332.7	373.7	483.7	518.1	626.8	773.9	836.2	893.2	991.3	1042.9	1050.8
15°	300.8	356.5	504.9	555.3	695.7	866.7	935.6	1005.8	1097.3	1134.3	1143.6
17.5°	273.0	343.2	524.8	577.8	748.7	950.2	1020.4	1078.7	1152.9	1178.1	1184.7
20°	238.5	322.0	538.1	606.9	804.4	1011.1	1078.7	1123.8	1174.1	1190.0	1192.7
22.5°	213.3	299.5	546.0	617.5	841.5	1048.3	1105.2	1141.0	1175.4	1180.8	1182.0
25°	192.2	274.3	544.7	629.5	873.3	1070.8	1114.5	1141.0	1160.9	1163.6	1163.6
27.5°	172.3	246.5	539.3	632.1	897.2	1076.0	1110.5	1129.1	1138.4	1143.6	1143.6
30°	155.0	220.0	526.1	626.8	907.8	1070.8	1098.6	1107.8	1117.1	1125.1	1129.1
32.5°	141.8	194.8	506.3	616.2	909.1	1057.5	1077.4	1082.7	1095.9	1114.5	1121.1
35°	129.8	169.6	483.7	601.6	901.2	1036.3	1049.6	1054.9	1081.4	1109.2	1118.4
37.5°	118.0	151.1	454.6	576.5	889.2	1011.1	1020.4	1029.7	1070.8	1103.9	1114.5
40°	106.0	135.2	420.1	548.6	870.6	980.7	988.6	1003.2	1057.5	1095.9	1106.6
42.5°	96.7	121.9	382.9	519.5	846.8	946.2	958.2	979.3	1041.6	1082.7	1094.6
45°	88.8	108.7	343.2	479.7	816.3	910.4	927.6	956.8	1023.1	1062.8	1073.4
47.5°	80.8	99.4	302.1	438.7	783.2	874.7	897.2	930.3	997.9	1036.3	1045.6
50°	74.2	90.1	261.0	394.9	747.4	836.2	862.7	897.2	966.1	1001.8	1013.8
52.5°	68.9	82.2	222.6	351.1	706.3	796.4	827.0	862.7	927.6	962.1	970.0
55°	63.6	75.6	189.5	304.8	663.9	754.0	787.1	821.6	885.2	914.4	919.7
57.5°	61.0	70.2	161.6	261.0	618.9	706.3	743.5	775.3	834.9	857.4	862.7
60°	57.0	66.3	140.5	224.0	569.9	661.3	693.1	724.9	775.3	793.8	797.8
62.5°	53.1	63.6	124.6	188.2	519.5	608.3	640.0	669.3	711.7	724.9	730.2
65°	50.4	61.0	112.6	161.6	467.8	552.6	584.4	609.6	644.1	657.3	660.0
67.5°	47.7	58.3	103.3	139.1	416.1	497.0	520.8	544.7	571.2	584.4	585.7
70°	43.8	55.6	95.4	123.2	363.1	433.3	453.2	478.4	499.6	506.3	510.2
72.5°	41.1	51.7	90.1	111.3	308.8	372.4	391.0	405.5	424.0	430.7	430.7
75°	37.1	46.3	84.8	99.4	253.1	304.8	320.7	335.2	349.9	352.5	348.6
77.5°	33.1	41.1	72.9	83.5	197.5	241.2	254.4	262.4	274.3	276.9	278.3
80°	27.9	35.8	57.0	64.9	143.2	177.5	186.8	193.5	204.1	204.1	206.7
82.5°	21.2	27.9	41.1	46.3	96.7	121.9	129.8	133.9	140.5	140.5	140.5
85°	13.2	17.2	26.5	30.4	58.3	74.2	79.5	80.8	86.2	87.4	87.4
87.5°	6.6	9.3	17.2	18.6	30.4	38.4	38.4	41.1	41.1	39.7	38.4
90°	8.2	14.8	21.3	23.0	36.2	53.6	62.4	55.5	41.6	31.2	31.2
92.5°	32.9	88.8	144.7	158.7	223.0	308.8	351.7	308.3	221.4	156.2	150.0
95°	78.9	181.2	283.5	309.0	548.7	868.4	1028.2	917.6	696.1	530.2	511.4
97.5°	136.4	226.6	317.0	339.5	739.2	1272.1	1538.6	1468.7	1328.8	1223.8	1188.1
100°	180.8	262.6	344.5	365.0	808.5	1399.9	1695.6	1700.7	1710.9	1718.6	1675.9
102.5°	218.6	294.9	371.3	390.4	840.2	1440.0	1740.0	1829.1	2007.4	2141.1	2104.5
105°	282.8	347.4	412.0	428.2	863.8	1444.7	1735.0	1934.8	2334.4	2634.2	2614.5
107.5°	348.5	408.7	469.0	484.1	868.3	1380.3	1636.4	1915.1	2472.6	2890.6	2895.3
110°	392.8	447.3	501.7	515.3	861.6	1323.3	1554.2	1865.8	2489.0	2956.4	2976.8



TEST NUMBER: P937420

CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	436.4	488.3	540.2	553.2	861.9	1273.6	1479.4	1798.4	2436.1	2914.5	2945.9
115°	502.2	550.0	597.9	609.9	869.8	1216.5	1389.8	1697.1	2311.5	2772.3	2815.9
117.5°	567.1	610.6	654.1	664.9	886.0	1180.8	1328.2	1605.4	2160.0	2575.8	2624.1
120°	605.0	645.9	686.8	696.9	899.2	1168.8	1303.6	1556.9	2063.5	2443.5	2490.5
122.5°	641.9	683.2	724.5	734.8	918.0	1162.4	1284.6	1512.7	1969.0	2311.2	2357.6
125°	698.6	736.3	773.9	783.3	943.5	1157.2	1264.0	1457.9	1845.5	2136.2	2178.8
127.5°	744.7	782.6	820.6	830.1	969.0	1154.3	1246.9	1413.2	1746.0	1995.6	2031.5
130°	769.3	810.2	851.1	861.3	987.6	1156.1	1240.2	1388.3	1684.6	1906.8	1940.0
132.5°	794.7	835.7	876.6	886.8	1002.7	1157.2	1234.5	1367.1	1632.3	1831.2	1860.9
135°	832.6	869.8	907.2	916.5	1019.2	1156.2	1224.6	1335.7	1557.8	1724.4	1750.0
137.5°	871.2	908.1	945.0	954.2	1043.8	1163.3	1222.9	1316.8	1504.6	1645.4	1666.5
140°	903.2	937.2	971.2	979.7	1058.8	1164.5	1217.2	1298.3	1460.6	1582.2	1601.8
142.5°	927.9	959.3	990.8	998.6	1071.5	1168.6	1217.2	1288.5	1430.9	1537.8	1554.7
145°	965.8	993.1	1020.6	1027.4	1088.0	1168.7	1209.0	1267.3	1383.8	1471.2	1484.0
147.5°	1003.5	1030.2	1056.9	1063.6	1112.1	1176.7	1209.0	1254.9	1346.5	1415.3	1425.9
150°	1028.2	1052.3	1076.4	1082.5	1124.6	1180.9	1209.0	1247.7	1325.2	1383.3	1391.9
152.5°	1053.7	1072.0	1090.3	1094.8	1132.8	1183.6	1209.0	1242.1	1308.2	1357.8	1364.3
155°	1091.4	1105.0	1118.5	1121.9	1150.9	1189.7	1209.0	1235.3	1288.0	1327.4	1331.6
157.5°	1119.4	1132.5	1145.8	1149.0	1169.0	1195.7	1209.0	1229.5	1270.4	1301.1	1304.1
160°	1138.4	1148.6	1158.8	1161.4	1177.3	1198.4	1209.0	1226.6	1261.7	1288.0	1289.7
162.5°	1157.2	1165.0	1172.7	1174.5	1186.0	1201.3	1209.0	1223.8	1253.4	1275.6	1277.3
165°	1177.8	1184.7	1191.6	1193.4	1198.6	1205.6	1209.0	1219.6	1240.8	1256.7	1258.5
167.5°	1196.7	1199.9	1203.3	1204.1	1208.4	1214.3	1217.2	1224.1	1238.1	1248.4	1249.1
170°	1209.0	1212.3	1215.6	1216.4	1216.7	1217.0	1217.2	1224.1	1238.1	1248.4	1248.4
172.5°	1215.6	1216.3	1217.0	1217.2	1217.2	1217.2	1217.2	1222.7	1233.7	1241.9	1241.3
175°	1224.6	1224.6	1224.6	1224.6	1222.2	1218.9	1217.2	1220.7	1227.6	1232.8	1232.8
177.5°	1224.6	1224.6	1224.6	1224.6	1222.7	1220.2	1218.9	1221.7	1227.1	1231.2	1230.6
180°	1224.6	1224.6	1224.6	1224.6	1224.6	1224.6	1224.6	1224.6	1224.6	1224.6	1224.6



TEST NUMBER: P937420

CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	412.1	412.1
2.5°	440.0	437.3
5°	565.8	568.5
7.5°	761.9	760.7
10°	947.5	959.4
12.5°	1082.7	1085.3
15°	1164.9	1170.2
17.5°	1196.7	1198.0
20°	1198.0	1195.3
22.5°	1183.4	1180.8
25°	1166.1	1164.9
27.5°	1150.2	1151.6
30°	1143.6	1147.7
32.5°	1143.6	1150.2
35°	1146.3	1152.9
37.5°	1145.0	1152.9
40°	1139.7	1148.9
42.5°	1125.1	1131.8
45°	1102.6	1110.5
47.5°	1073.4	1078.7
50°	1036.3	1041.6
52.5°	989.9	991.3
55°	934.3	939.6
57.5°	874.7	876.0
60°	808.4	812.3
62.5°	738.1	738.1
65°	663.9	666.6
67.5°	587.1	593.7
70°	508.9	510.2
72.5°	432.1	432.1
75°	352.5	353.8
77.5°	276.9	276.9
80°	205.4	206.7
82.5°	141.8	144.4
85°	88.8	88.8
87.5°	41.1	37.1
90°	31.2	31.2
92.5°	125.2	100.3
95°	436.1	360.8
97.5°	1044.8	901.6
100°	1505.4	1334.8
102.5°	1958.4	1812.3
105°	2536.0	2457.5
107.5°	2914.4	2933.4
110°	3058.7	3140.5



TEST NUMBER: P937420
CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3071.5	3197.2
115°	2990.1	3164.4
117.5°	2817.4	3010.6
120°	2678.3	2866.0
122.5°	2542.7	2727.9
125°	2349.4	2520.0
127.5°	2175.5	2319.4
130°	2073.0	2206.0
132.5°	1980.1	2099.1
135°	1852.7	1955.4
137.5°	1750.4	1834.5
140°	1680.3	1758.8
142.5°	1622.3	1689.9
145°	1535.2	1586.2
147.5°	1468.3	1510.7
150°	1426.2	1460.6
152.5°	1390.2	1416.1
155°	1348.8	1366.0
157.5°	1316.1	1328.2
160°	1296.7	1303.6
162.5°	1283.8	1290.4
165°	1265.4	1272.3
167.5°	1252.1	1255.1
170°	1248.4	1248.4
172.5°	1238.8	1236.2
175°	1232.8	1232.8
177.5°	1227.6	1224.6
180°	1224.6	1224.6



TEST NUMBER: P937420

CATALOG NUMBER: SQ4-FB-100U-050D-840-1D-UNV-STD-W-8

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	0.88	1.60	2.00	2.71	4.26	14.06	14.78	15.18	15.89	17.44
	3H	1.58	2.22	2.70	3.34	4.90	15.89	16.53	17.01	17.66	19.22
	4H	1.87	2.48	3.00	3.60	5.17	16.53	17.14	17.66	18.26	19.83
	6H	2.11	2.67	3.25	3.80	5.37	16.95	17.51	18.09	18.64	20.22
	8H	2.17	2.71	3.32	3.85	5.42	17.07	17.60	18.21	18.74	20.31
	12H	2.19	2.69	3.34	3.83	5.42	17.13	17.64	18.28	18.77	20.37
4H	2H	8.08	8.69	9.22	9.81	11.38	14.32	14.93	15.46	16.05	17.62
	3H	9.64	10.15	10.78	11.29	12.87	16.35	16.86	17.50	18.01	19.59
	4H	9.72	10.19	10.87	11.33	12.93	17.11	17.58	18.26	18.72	20.32
	6H	9.73	10.13	10.88	11.29	12.88	17.64	18.05	18.80	19.21	20.79
	8H	9.70	10.08	10.85	11.23	12.83	17.80	18.18	18.96	19.33	20.93
	12H	9.65	9.99	10.82	11.15	12.76	17.89	18.23	19.06	19.39	21.00
8H	4H	11.16	11.53	12.31	12.68	14.29	17.16	17.54	18.31	18.69	20.29
	6H	11.39	11.70	12.57	12.90	14.50	17.78	18.09	18.96	19.29	20.89
	8H	11.41	11.68	12.59	12.85	14.47	18.00	18.27	19.18	19.44	21.07
	12H	11.37	11.61	12.55	12.78	14.43	18.14	18.38	19.32	19.55	21.20
12H	4H	11.29	11.63	12.46	12.80	14.41	17.10	17.45	18.28	18.61	20.22
	6H	11.65	11.92	12.83	13.09	14.71	17.76	18.03	18.94	19.21	20.83
	8H	11.71	11.95	12.90	13.12	14.77	17.99	18.22	19.17	19.39	21.05