

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: P937416

Luminaire Tested: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937416
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-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

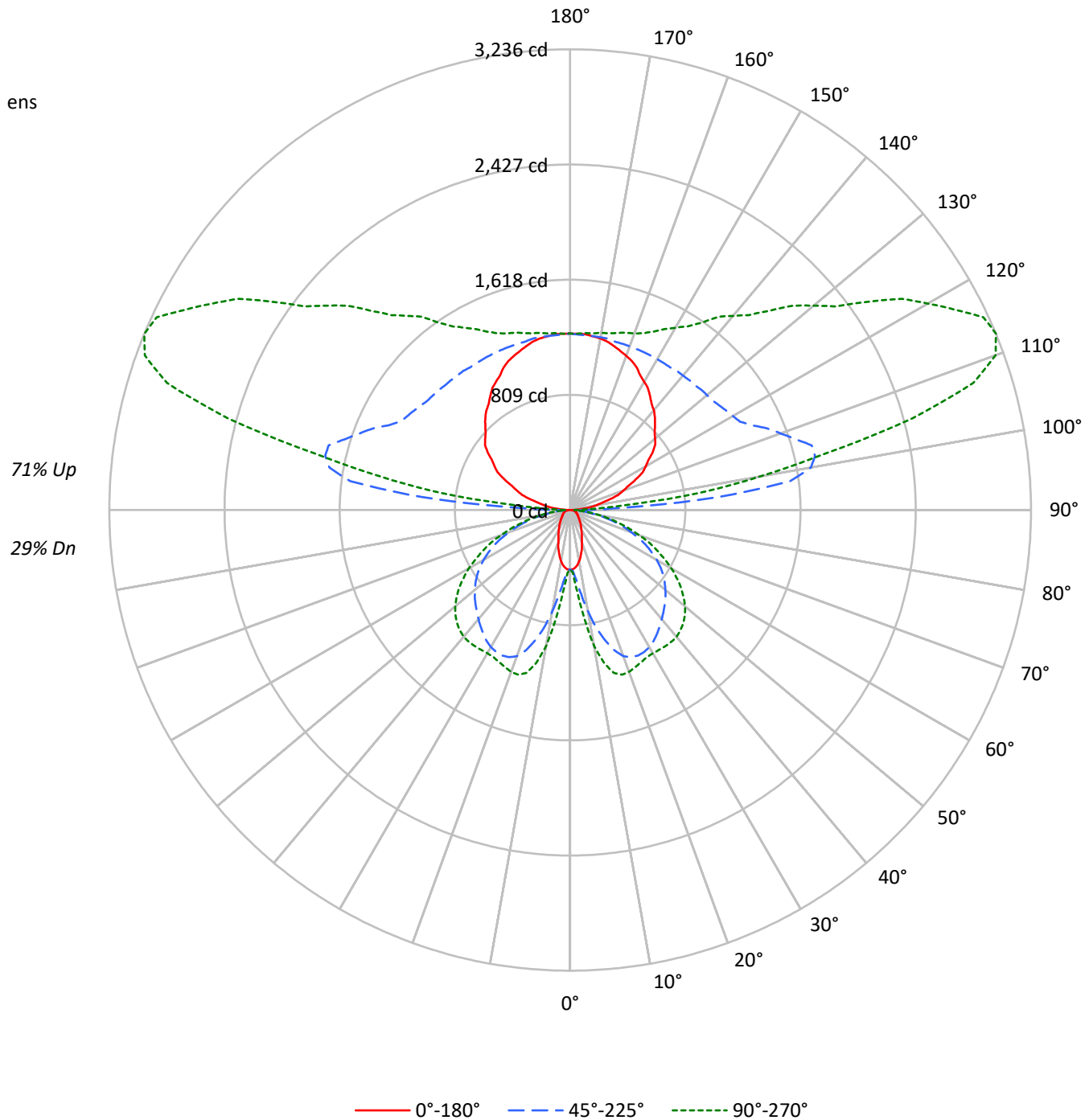
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11267.0 lumens
Efficiency: N/A
Efficacy: 136.7 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 (Ain): 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: P937416
CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P937416

CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-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°	1935	1935	1935
5°	1891	2237	2601
10°	1715	3261	4313
15°	1458	4260	5208
20°	1186	4937	5307
25°	990	5166	5200
30°	835	5199	5190
35°	738	5112	5324
40°	643	5000	5463
45°	583	4918	5484
50°	534	4844	5393
55°	512	4736	5154
60°	524	4528	4777
65°	545	4212	4258
70°	581	3673	3597
75°	644	2995	2807
80°	704	2077	1891
85°	624	1102	968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5484 cd/sqm



TEST NUMBER: P937416

CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	0.5
10°-20°	239.1	2.1
20°-30°	418.3	3.7
30°-40°	538.5	4.8
40°-50°	601.5	5.3
50°-60°	576.1	5.1
60°-70°	456.5	4.1
70°-80°	268.5	2.4
80°-90°	79.3	0.7
90°-100°	604.2	5.4
100°-110°	1588.5	14.1
110°-120°	1647.1	14.6
120°-130°	1321.2	11.7
130°-140°	1036.6	9.2
140°-150°	795.7	7.1
150°-160°	573.0	5.1
160°-170°	350.6	3.1
170°-180°	118.4	1.1
0°-30°	711.4	6.3
0°-40°	1249.9	11.1
0°-60°	2427.4	21.5
0°-90°	3231.7	28.7
90°-120°	3839.8	34.1
90°-150°	6993.2	62.1
90°-180°	8035.0	71.3
0°-180°	11267.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	417	417	417	417	417	
5°	406	436	491	555	575	38
15°	304	562	947	1148	1184	85
25°	194	637	1128	1178	1179	90
35°	131	609	1062	1123	1167	82
45°	90	486	939	1076	1124	70
55°	64	308	797	926	951	59
65°	51	164	592	665	675	51
75°	38	101	325	357	358	39
85°	13	31	80	88	90	14
90°	8	23	63	32	32	8
95°	80	313	1041	537	365	89
105°	286	433	1756	2666	2487	303
115°	508	617	1407	2806	3203	502
125°	707	793	1279	2162	2551	628
135°	843	928	1240	1745	1979	652
145°	978	1040	1224	1489	1606	612
155°	1105	1136	1224	1344	1383	508
165°	1192	1208	1224	1272	1288	336
175°	1240	1240	1232	1248	1248	118
180°	1240	1240	1240	1240	1240	



TEST NUMBER: P937416

CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1
2.5°	417.1	417.1	419.8	421.2	423.8	425.2	427.9	430.6	438.6	439.9	442.6
5°	406.4	411.8	429.2	435.9	454.7	480.2	490.9	508.3	544.6	555.3	562.0
7.5°	390.3	402.4	445.3	456.0	503.0	570.0	598.2	635.8	693.4	721.6	744.4
10°	364.8	390.3	466.8	492.3	568.7	670.6	723.0	775.3	862.4	901.3	916.1
12.5°	336.7	378.2	489.6	524.4	634.4	783.3	846.4	904.0	1003.3	1055.6	1063.6
15°	304.5	360.8	511.0	562.0	704.2	877.2	947.0	1018.0	1110.6	1148.1	1157.5
17.5°	276.3	347.4	531.2	584.8	757.8	961.7	1032.8	1091.8	1166.9	1192.4	1199.1
20°	241.4	325.9	544.6	614.3	814.2	1023.4	1091.8	1137.4	1188.4	1204.5	1207.2
22.5°	215.9	303.1	552.6	625.0	851.7	1061.0	1118.6	1154.9	1189.7	1195.1	1196.4
25°	194.5	277.6	551.3	637.1	883.9	1083.8	1128.0	1154.9	1175.0	1177.7	1177.7
27.5°	174.4	249.5	545.9	639.8	908.1	1089.1	1124.0	1142.8	1152.2	1157.5	1157.5
30°	156.9	222.7	532.5	634.4	918.8	1083.8	1111.9	1121.3	1130.7	1138.8	1142.8
32.5°	143.5	197.2	512.4	623.7	920.1	1070.3	1090.5	1095.8	1109.2	1128.0	1134.7
35°	131.4	171.7	489.6	608.9	912.1	1048.9	1062.3	1067.7	1094.5	1122.7	1132.0
37.5°	119.4	152.9	460.1	583.5	900.0	1023.4	1032.8	1042.2	1083.8	1117.3	1128.0
40°	107.3	136.8	425.2	555.3	881.2	992.6	1000.6	1015.4	1070.3	1109.2	1120.0
42.5°	97.9	123.4	387.6	525.8	857.1	957.7	969.8	991.2	1054.3	1095.8	1107.9
45°	89.9	110.0	347.4	485.5	826.2	921.5	938.9	968.4	1035.5	1075.7	1086.4
47.5°	81.8	100.6	305.8	444.0	792.7	885.3	908.1	941.6	1010.0	1048.9	1058.3
50°	75.1	91.2	264.2	399.7	756.5	846.4	873.2	908.1	977.8	1014.0	1026.1
52.5°	69.7	83.2	225.3	355.4	714.9	806.1	837.0	873.2	938.9	973.8	981.8
55°	64.4	76.5	191.8	308.5	672.0	763.2	796.7	831.6	896.0	925.5	930.9
57.5°	61.7	71.1	163.6	264.2	626.4	714.9	752.5	784.7	845.0	867.8	873.2
60°	57.7	67.1	142.2	226.7	576.8	669.3	701.5	733.7	784.7	803.4	807.5
62.5°	53.7	64.4	126.1	190.5	525.8	615.7	647.8	677.4	720.3	733.7	739.1
65°	51.0	61.7	114.0	163.6	473.5	559.3	591.5	617.0	651.9	665.3	668.0
67.5°	48.3	59.0	104.6	140.8	421.2	503.0	527.1	551.3	578.1	591.5	592.8
70°	44.3	56.3	96.6	124.7	367.5	438.6	458.7	484.2	505.7	512.4	516.4
72.5°	41.6	52.3	91.2	112.7	312.5	376.9	395.7	410.4	429.2	435.9	435.9
75°	37.6	46.9	85.8	100.6	256.2	308.5	324.6	339.3	354.1	356.8	352.8
77.5°	33.5	41.6	73.8	84.5	199.9	244.1	257.5	265.6	277.6	280.3	281.7
80°	28.2	36.2	57.7	65.7	144.9	179.7	189.1	195.8	206.6	206.6	209.2
82.5°	21.5	28.2	41.6	46.9	97.9	123.4	131.4	135.5	142.2	142.2	142.2
85°	13.4	17.4	26.8	30.8	59.0	75.1	80.5	81.8	87.2	88.5	88.5
87.5°	6.7	9.4	17.4	18.8	30.8	38.9	38.9	41.6	41.6	40.2	38.9
90°	8.3	15.0	21.6	23.3	36.6	54.3	63.2	56.2	42.1	31.6	31.6
92.5°	33.3	89.9	146.5	160.6	225.7	312.6	356.0	312.0	224.1	158.1	151.8
95°	79.9	183.4	286.9	312.8	555.4	878.9	1040.7	928.7	704.6	536.6	517.6
97.5°	138.1	229.4	320.8	343.6	748.2	1287.6	1557.3	1486.5	1344.9	1238.7	1202.5
100°	183.0	265.8	348.7	369.4	818.3	1416.9	1716.2	1721.4	1731.7	1739.5	1696.3
102.5°	221.3	298.5	375.8	395.1	850.4	1457.5	1761.1	1851.3	2031.8	2167.1	2130.1
105°	286.2	351.6	417.0	433.4	874.3	1462.2	1756.1	1958.3	2362.8	2666.2	2646.3
107.5°	352.7	413.7	474.7	490.0	878.8	1397.1	1656.3	1938.4	2502.6	2925.7	2930.5
110°	397.6	452.7	507.8	521.6	872.1	1339.4	1573.1	1888.5	2519.2	2992.3	3013.0



TEST NUMBER: P937416

CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	441.7	494.2	546.8	559.9	872.4	1289.1	1497.4	1820.2	2465.7	2949.9	2981.7
115°	508.3	556.7	605.2	617.3	880.4	1231.3	1406.7	1717.7	2339.6	2806.0	2850.1
117.5°	574.0	618.0	662.0	673.0	896.8	1195.1	1344.3	1624.9	2186.2	2607.1	2656.0
120°	612.3	653.7	695.1	705.4	910.1	1183.0	1319.4	1575.8	2088.6	2473.2	2520.7
122.5°	649.7	691.5	733.3	743.7	929.2	1176.5	1300.2	1531.1	1992.9	2339.3	2386.2
125°	707.1	745.2	783.3	792.8	955.0	1171.3	1279.4	1475.6	1867.9	2162.1	2205.3
127.5°	753.7	792.1	830.6	840.2	980.8	1168.3	1262.0	1430.4	1767.2	2019.8	2056.2
130°	778.6	820.0	861.4	871.8	999.6	1170.1	1255.3	1405.2	1705.1	1930.0	1963.6
132.5°	804.4	845.8	887.2	897.6	1014.9	1171.3	1249.5	1383.7	1652.1	1853.4	1883.5
135°	842.7	880.4	918.2	927.6	1031.6	1170.2	1239.5	1351.9	1576.7	1745.3	1771.3
137.5°	881.8	919.1	956.5	965.8	1056.5	1177.4	1237.8	1332.8	1522.9	1665.4	1686.7
140°	914.2	948.6	983.0	991.6	1071.7	1178.6	1232.0	1314.1	1478.3	1601.4	1621.3
142.5°	939.2	971.0	1002.8	1010.7	1084.5	1182.8	1232.0	1304.1	1448.3	1556.5	1573.6
145°	977.5	1005.2	1033.0	1039.9	1101.2	1182.9	1223.7	1282.7	1400.6	1489.1	1502.0
147.5°	1015.7	1042.7	1069.7	1076.5	1125.6	1191.0	1223.7	1270.1	1362.9	1432.5	1443.2
150°	1040.7	1065.1	1089.5	1095.6	1138.3	1195.2	1223.7	1262.9	1341.3	1400.1	1408.8
152.5°	1066.5	1085.0	1103.5	1108.1	1146.6	1198.0	1223.7	1257.2	1324.1	1374.3	1380.9
155°	1104.7	1118.4	1132.1	1135.5	1164.9	1204.1	1223.7	1250.3	1303.6	1343.5	1347.8
157.5°	1133.0	1146.3	1159.7	1163.0	1183.2	1210.2	1223.7	1244.4	1285.8	1316.9	1319.9
160°	1152.2	1162.6	1172.9	1175.5	1191.6	1213.0	1223.7	1241.5	1277.0	1303.6	1305.4
162.5°	1171.3	1179.1	1186.9	1188.8	1200.4	1215.9	1223.7	1238.7	1268.6	1291.1	1292.8
165°	1192.1	1199.1	1206.1	1207.9	1213.2	1220.2	1223.7	1234.4	1255.9	1272.0	1273.8
167.5°	1211.2	1214.5	1217.9	1218.7	1223.1	1229.0	1232.0	1239.0	1253.1	1263.6	1264.3
170°	1223.7	1227.0	1230.4	1231.2	1231.5	1231.8	1232.0	1239.0	1253.1	1263.6	1263.6
172.5°	1230.4	1231.1	1231.8	1232.0	1232.0	1232.0	1232.0	1237.6	1248.7	1257.0	1256.4
175°	1239.5	1239.5	1239.5	1239.5	1237.0	1233.7	1232.0	1235.5	1242.5	1247.8	1247.8
177.5°	1239.5	1239.5	1239.5	1239.5	1237.6	1235.0	1233.7	1236.5	1242.0	1246.2	1245.5
180°	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5



TEST NUMBER: P937416

CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	417.1	417.1
2.5°	445.3	442.6
5°	572.7	575.4
7.5°	771.2	769.9
10°	959.0	971.1
12.5°	1095.8	1098.5
15°	1179.0	1184.4
17.5°	1211.2	1212.5
20°	1212.5	1209.8
22.5°	1197.8	1195.1
25°	1180.3	1179.0
27.5°	1164.2	1165.6
30°	1157.5	1161.6
32.5°	1157.5	1164.2
35°	1160.2	1166.9
37.5°	1158.9	1166.9
40°	1153.5	1162.9
42.5°	1138.8	1145.5
45°	1116.0	1124.0
47.5°	1086.4	1091.8
50°	1048.9	1054.3
52.5°	1001.9	1003.3
55°	945.6	951.0
57.5°	885.3	886.6
60°	818.2	822.2
62.5°	747.1	747.1
65°	672.0	674.7
67.5°	594.2	600.9
70°	515.1	516.4
72.5°	437.3	437.3
75°	356.8	358.1
77.5°	280.3	280.3
80°	207.9	209.2
82.5°	143.5	146.2
85°	89.9	89.9
87.5°	41.6	37.6
90°	31.6	31.6
92.5°	126.7	101.5
95°	441.4	365.2
97.5°	1057.5	912.6
100°	1523.7	1351.0
102.5°	1982.2	1834.3
105°	2566.8	2487.3
107.5°	2949.8	2969.0
110°	3095.8	3178.6



TEST NUMBER: P937416

CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3108.8	3236.0
115°	3026.4	3202.8
117.5°	2851.6	3047.2
120°	2710.8	2900.8
122.5°	2573.6	2761.0
125°	2377.9	2550.6
127.5°	2201.9	2347.6
130°	2098.2	2232.8
132.5°	2004.1	2124.6
135°	1875.2	1979.1
137.5°	1771.7	1856.8
140°	1700.7	1780.2
142.5°	1642.0	1710.4
145°	1553.8	1605.5
147.5°	1486.1	1529.0
150°	1443.5	1478.3
152.5°	1407.1	1433.3
155°	1365.2	1382.6
157.5°	1332.1	1344.3
160°	1312.4	1319.4
162.5°	1299.4	1306.1
165°	1280.8	1287.8
167.5°	1267.3	1270.3
170°	1263.6	1263.6
172.5°	1253.8	1251.2
175°	1247.8	1247.8
177.5°	1242.5	1239.5
180°	1239.5	1239.5



TEST NUMBER: P937416
 CATALOG NUMBER: SQ4-FB-100U-050D-835-1D-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	0.93	1.64	2.04	2.76	4.30	14.10	14.82	15.22	15.93	17.48
	3H	1.62	2.26	2.74	3.38	4.94	15.93	16.58	17.06	17.70	19.26
	4H	1.91	2.52	3.04	3.64	5.21	16.57	17.18	17.71	18.31	19.87
	6H	2.15	2.72	3.30	3.84	5.42	16.99	17.56	18.14	18.68	20.26
	8H	2.22	2.75	3.36	3.89	5.46	17.11	17.65	18.26	18.79	20.36
	12H	2.23	2.74	3.38	3.87	5.47	17.17	17.68	18.32	18.82	20.41
4H	2H	8.12	8.73	9.26	9.86	11.42	14.36	14.97	15.50	16.09	17.66
	3H	9.68	10.19	10.82	11.34	12.91	16.39	16.90	17.54	18.05	19.63
	4H	9.77	10.24	10.92	11.37	12.97	17.15	17.62	18.30	18.76	20.36
	6H	9.77	10.17	10.92	11.33	12.92	17.68	18.09	18.84	19.25	20.84
	8H	9.74	10.12	10.90	11.27	12.87	17.84	18.22	19.00	19.37	20.98
	12H	9.69	10.03	10.86	11.19	12.80	17.93	18.27	19.10	19.43	21.04
8H	4H	11.20	11.57	12.35	12.73	14.33	17.20	17.58	18.36	18.73	20.33
	6H	11.43	11.74	12.61	12.94	14.54	17.82	18.14	19.00	19.33	20.93
	8H	11.45	11.72	12.63	12.89	14.51	18.04	18.31	19.22	19.49	21.11
	12H	11.41	11.65	12.60	12.82	14.47	18.18	18.42	19.36	19.59	21.24
12H	4H	11.33	11.68	12.51	12.84	14.45	17.15	17.49	18.32	18.65	20.26
	6H	11.69	11.96	12.87	13.13	14.76	17.80	18.08	18.99	19.25	20.87
	8H	11.75	11.99	12.94	13.16	14.82	18.03	18.27	19.21	19.44	21.09