

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: P936977

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936977
REPORT IS A COMBINATION OF REPORTS P933464 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

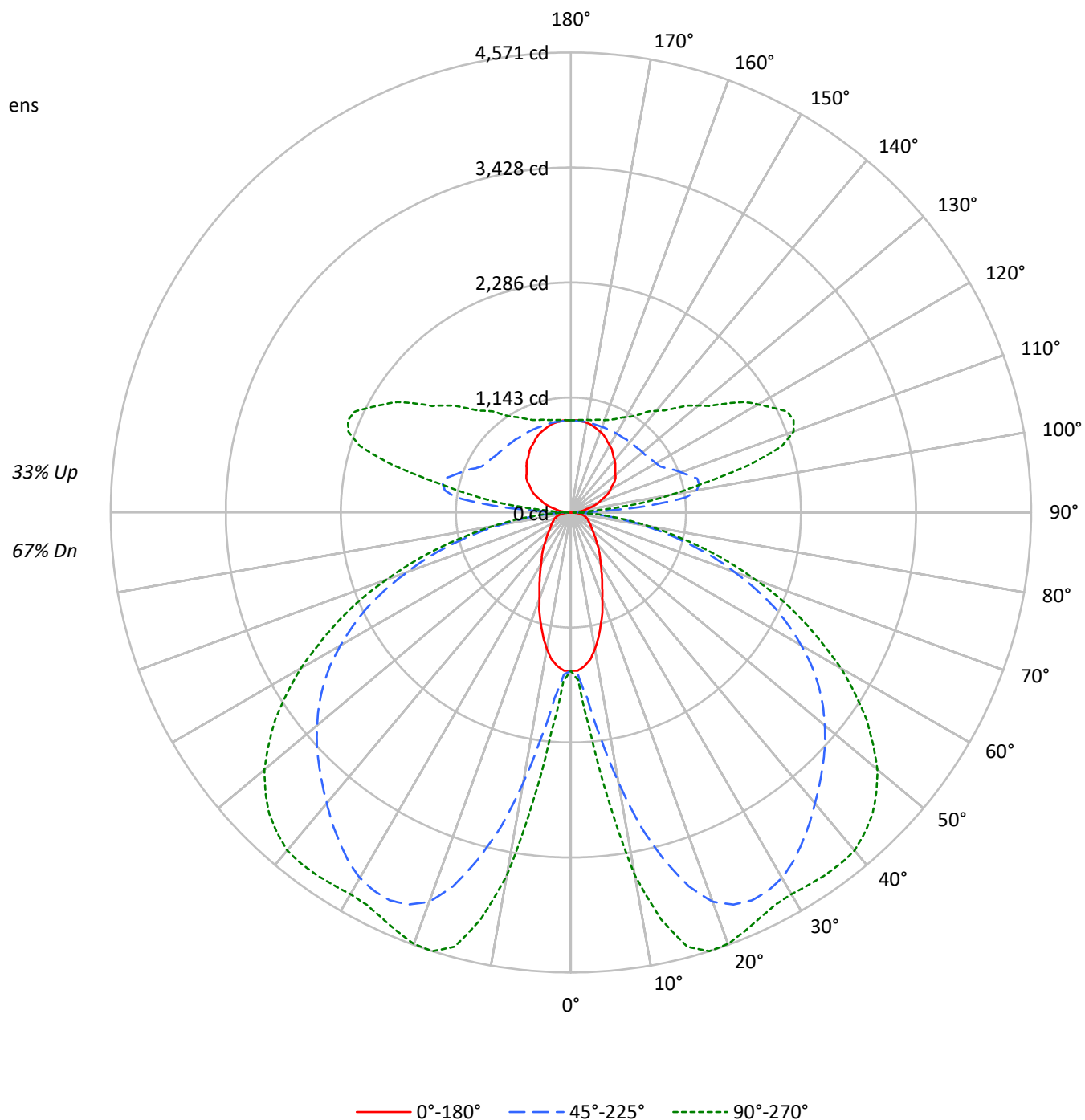
Lumens per Lamp: N/A
Luminaire Lumens: 18117.2 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 168
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: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93		82	82	82		72
1	101	96	92	88	95	91	87	83	80	78	75		71	69	67		62
2	91	83	76	71	86	78	72	67	70	65	61		61	58	55		54
3	83	72	64	58	77	68	61	55	61	55	50		54	49	45		47
4	75	64	55	48	70	60	52	46	53	47	42		47	42	38		42
5	69	56	47	41	64	53	45	39	47	41	36		42	37	32		37
6	63	50	41	35	59	47	39	34	42	36	31		38	32	28		33
7	58	45	36	30	55	43	35	29	38	32	27		34	29	24		30
8	54	41	32	27	51	39	31	26	35	28	24		31	26	22		27
9	50	37	29	24	47	35	28	23	32	25	21		28	23	19		25
10	47	34	26	21	44	32	25	20	29	23	19		26	21	17		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4864	4864	4864
5°	4753	5623	6538
10°	4314	8199	10839
15°	3667	10714	13088
20°	2987	12419	13339
25°	2493	12999	13067
30°	2103	13085	13043
35°	1860	12871	13380
40°	1622	12592	13729
45°	1469	12389	13783
50°	1349	12207	13554
55°	1293	11939	12953
60°	1326	11420	12005
65°	1381	10628	10701
70°	1475	9275	9040
75°	1640	7570	7055
80°	1806	5255	4754
85°	1640	2794	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13783 cd/sqm

TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.4	1.1
10°-20°	901.5	5.0
20°-30°	1576.9	8.7
30°-40°	2030.0	11.2
40°-50°	2267.4	12.5
50°-60°	2171.7	12.0
60°-70°	1721.0	9.5
70°-80°	1012.0	5.6
80°-90°	284.6	1.6
90°-100°	447.3	2.5
100°-110°	1176.0	6.5
110°-120°	1219.3	6.7
120°-130°	978.1	5.4
130°-140°	767.4	4.2
140°-150°	589.0	3.3
150°-160°	424.2	2.3
160°-170°	259.6	1.4
170°-180°	87.7	0.5
0°-30°	2681.9	14.8
0°-40°	4711.9	26.0
0°-60°	9150.9	50.5
0°-90°	12168.6	67.2
90°-120°	2842.6	15.7
90°-150°	5177.1	28.6
90°-180°	5949.0	32.8
0°-180°	18117.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1532	1643	1851	2093	2169	141
15°	1148	2119	3570	4328	4465	319
25°	733	2402	4252	4440	4445	338
35°	496	2296	4005	4232	4399	309
45°	339	1830	3540	4055	4237	262
55°	243	1163	3004	3489	3585	221
65°	192	617	2230	2508	2543	190
75°	142	379	1224	1345	1350	148
85°	51	116	303	334	339	54
90°	6	17	47	23	23	9
95°	59	232	770	397	270	66
105°	212	321	1300	1974	1841	225
115°	376	457	1041	2077	2371	372
125°	524	587	947	1601	1888	465
135°	624	687	918	1292	1465	483
145°	724	770	906	1102	1189	453
155°	818	841	906	995	1024	376
165°	883	894	906	942	953	249
175°	918	918	912	924	924	87
180°	918	918	918	918	918	

TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6
2.5°	1572.6	1572.6	1582.6	1587.7	1597.8	1602.9	1613.0	1623.1	1653.5	1658.5	1668.6
5°	1532.0	1552.3	1618.0	1643.3	1714.1	1810.2	1850.7	1916.4	2052.9	2093.4	2118.6
7.5°	1471.4	1516.9	1678.8	1719.2	1896.2	2149.0	2255.1	2396.8	2614.2	2720.4	2806.3
10°	1375.4	1471.4	1759.6	1855.6	2143.9	2528.1	2725.4	2922.6	3251.2	3397.9	3453.5
12.5°	1269.2	1425.9	1845.6	1977.1	2391.7	2952.9	3190.6	3408.0	3782.2	3979.4	4009.7
15°	1147.8	1360.1	1926.5	2118.6	2654.6	3306.9	3569.8	3837.8	4186.7	4328.3	4363.7
17.5°	1041.6	1309.6	2002.4	2204.5	2856.8	3625.4	3893.5	4115.9	4399.0	4495.1	4520.4
20°	910.1	1228.7	2052.9	2315.8	3069.3	3858.0	4115.9	4287.8	4480.0	4540.7	4550.7
22.5°	814.0	1142.7	2083.2	2356.2	3210.8	3999.6	4217.1	4353.5	4485.0	4505.2	4510.3
25°	733.2	1046.7	2078.2	2401.8	3332.1	4085.6	4252.4	4353.5	4429.4	4439.5	4439.5
27.5°	657.4	940.5	2057.9	2411.9	3423.2	4105.8	4237.3	4308.0	4343.5	4363.7	4363.7
30°	591.6	839.3	2007.3	2391.7	3463.6	4085.6	4191.8	4227.1	4262.6	4292.9	4308.0
32.5°	541.0	743.3	1931.5	2351.3	3468.7	4035.0	4110.9	4131.1	4181.6	4252.4	4277.7
35°	495.5	647.2	1845.6	2295.6	3438.4	3954.1	4004.6	4024.9	4126.0	4232.2	4267.6
37.5°	450.0	576.4	1734.3	2199.6	3392.9	3858.0	3893.5	3928.8	4085.6	4212.0	4252.4
40°	404.5	515.7	1602.9	2093.4	3322.1	3741.8	3772.1	3827.7	4035.0	4181.6	4222.0
42.5°	369.1	465.2	1461.3	1982.1	3231.0	3610.3	3655.8	3736.7	3974.3	4131.1	4176.6
45°	338.7	414.6	1309.6	1830.4	3114.7	3473.7	3539.5	3650.7	3903.5	4055.2	4095.7
47.5°	308.5	379.3	1152.9	1673.7	2988.3	3337.2	3423.2	3549.5	3807.5	3954.1	3989.5
50°	283.2	343.8	996.1	1506.8	2851.8	3190.6	3291.7	3423.2	3686.1	3822.6	3868.2
52.5°	262.9	313.5	849.5	1339.9	2695.1	3038.9	3155.2	3291.7	3539.5	3671.0	3701.2
55°	242.7	288.2	723.1	1162.9	2533.2	2877.0	3003.5	3135.0	3377.6	3488.9	3509.1
57.5°	232.6	268.0	616.9	996.1	2361.3	2695.1	2836.6	2958.0	3185.5	3271.5	3291.7
60°	217.4	252.8	535.9	854.6	2174.3	2523.2	2644.5	2765.9	2958.0	3028.7	3044.0
62.5°	202.3	242.7	475.3	718.0	1982.1	2320.9	2442.2	2553.4	2715.3	2765.9	2786.1
65°	192.1	232.6	429.8	616.9	1784.9	2108.5	2229.8	2326.0	2457.4	2507.9	2518.1
67.5°	182.1	222.5	394.4	531.0	1587.7	1896.2	1987.1	2078.2	2179.3	2229.8	2234.9
70°	166.8	212.3	364.0	470.2	1385.4	1653.5	1729.3	1825.4	1906.2	1931.5	1946.7
72.5°	156.8	197.2	343.8	424.7	1178.2	1420.9	1491.6	1547.3	1618.0	1643.3	1643.3
75°	141.5	177.0	323.6	379.3	965.7	1162.9	1223.7	1279.3	1334.8	1345.0	1329.9
77.5°	126.4	156.8	278.1	318.5	753.4	920.3	970.8	1001.2	1046.7	1056.8	1061.8
80°	106.2	136.6	217.4	247.8	546.1	677.6	712.9	738.2	778.7	778.7	788.8
82.5°	80.9	106.2	156.8	177.0	369.1	465.2	495.5	510.6	535.9	535.9	535.9
85°	50.6	65.7	101.1	116.3	222.5	283.2	303.4	308.5	328.7	333.8	333.8
87.5°	25.3	35.4	65.7	70.8	116.3	146.6	146.6	156.8	156.8	151.7	146.6
90°	6.2	11.1	16.0	17.2	27.1	40.2	46.8	41.6	31.2	23.4	23.4
92.5°	24.6	66.4	108.4	118.8	167.0	231.4	263.5	231.0	165.8	117.0	112.3
95°	59.2	135.8	212.4	231.6	411.1	650.7	770.4	687.4	521.6	397.2	383.1
97.5°	102.2	169.8	237.4	254.4	553.9	953.2	1152.9	1100.5	995.6	917.0	890.2
100°	135.5	196.8	258.1	273.4	605.8	1048.9	1270.5	1274.3	1282.0	1287.7	1255.8
102.5°	163.8	221.0	278.2	292.5	629.6	1079.1	1303.8	1370.5	1504.1	1604.3	1576.9
105°	211.8	260.3	308.7	320.8	647.2	1082.5	1300.1	1449.8	1749.2	1973.8	1959.0
107.5°	261.2	306.3	351.5	362.7	650.6	1034.3	1226.2	1435.0	1852.8	2166.0	2169.6
110°	294.4	335.2	376.0	386.1	645.6	991.6	1164.6	1398.1	1865.0	2215.2	2230.5

TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	327.0	365.8	404.7	414.4	645.8	954.3	1108.5	1347.5	1825.4	2183.8	2207.3
115°	376.3	412.1	448.0	457.0	651.8	911.5	1041.4	1271.6	1731.9	2077.3	2109.9
117.5°	424.9	457.5	490.0	498.2	663.8	884.7	995.2	1203.0	1618.4	1930.0	1966.2
120°	453.3	484.0	514.5	522.2	673.7	875.8	976.8	1166.6	1546.2	1830.9	1866.1
122.5°	481.0	511.9	542.8	550.6	687.9	871.0	962.5	1133.4	1475.4	1731.7	1766.4
125°	523.5	551.7	579.9	586.9	707.1	867.1	947.2	1092.4	1382.7	1600.6	1632.5
127.5°	558.0	586.4	614.9	622.0	726.1	864.8	934.2	1058.9	1308.2	1495.3	1522.3
130°	576.5	607.2	637.7	645.4	740.0	866.2	929.4	1040.3	1262.3	1428.8	1453.7
132.5°	595.5	626.2	656.9	664.5	751.4	867.1	925.0	1024.4	1223.1	1372.1	1394.4
135°	623.9	651.8	679.7	686.6	763.6	866.3	917.6	1000.9	1167.3	1292.1	1311.3
137.5°	652.8	680.5	708.2	715.0	782.2	871.7	916.4	986.7	1127.5	1232.9	1248.7
140°	676.8	702.3	727.7	734.1	793.4	872.5	912.0	972.8	1094.4	1185.5	1200.3
142.5°	695.3	718.8	742.4	748.3	802.9	875.7	912.0	965.4	1072.2	1152.3	1164.9
145°	723.6	744.1	764.6	769.8	815.2	875.7	906.0	949.6	1036.9	1102.4	1111.9
147.5°	752.0	771.9	791.9	796.9	833.3	881.8	906.0	940.3	1009.0	1060.5	1068.5
150°	770.4	788.4	806.6	811.0	842.7	884.8	906.0	934.9	992.9	1036.4	1042.9
152.5°	789.5	803.2	816.9	820.3	848.9	886.9	906.0	930.8	980.3	1017.4	1022.3
155°	817.8	828.0	838.1	840.6	862.4	891.4	906.0	925.7	965.0	994.6	997.8
157.5°	838.8	848.7	858.5	860.9	876.0	896.0	906.0	921.3	951.9	974.9	977.2
160°	853.0	860.6	868.3	870.2	882.2	898.0	906.0	919.1	945.3	965.0	966.3
162.5°	867.1	872.9	878.7	880.1	888.7	900.2	906.0	917.0	939.1	955.8	957.0
165°	882.6	887.7	892.9	894.2	898.1	903.4	906.0	913.9	929.8	941.6	942.9
167.5°	896.7	899.1	901.6	902.2	905.5	909.8	912.0	917.2	927.7	935.4	936.0
170°	906.0	908.4	910.8	911.4	911.6	911.9	912.0	917.2	927.7	935.4	935.4
172.5°	910.8	911.3	911.9	912.0	912.0	912.0	912.0	916.1	924.4	930.6	930.1
175°	917.6	917.6	917.6	917.6	915.7	913.2	912.0	914.6	919.9	923.8	923.8
177.5°	917.6	917.6	917.6	917.6	916.2	914.3	913.3	915.4	919.5	922.6	922.0
180°	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6

TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1572.6	1572.6
2.5°	1678.8	1668.6
5°	2159.1	2169.2
7.5°	2907.4	2902.3
10°	3615.3	3660.8
12.5°	4131.1	4141.2
15°	4444.6	4464.8
17.5°	4566.0	4570.9
20°	4570.9	4560.9
22.5°	4515.4	4505.2
25°	4449.6	4444.6
27.5°	4389.0	4394.1
30°	4363.7	4378.8
32.5°	4363.7	4389.0
35°	4373.7	4399.0
37.5°	4368.8	4399.0
40°	4348.5	4383.9
42.5°	4292.9	4318.2
45°	4206.9	4237.3
47.5°	4095.7	4115.9
50°	3954.1	3974.3
52.5°	3777.1	3782.2
55°	3564.8	3585.0
57.5°	3337.2	3342.3
60°	3084.4	3099.6
62.5°	2816.4	2816.4
65°	2533.2	2543.4
67.5°	2240.0	2265.3
70°	1941.7	1946.7
72.5°	1648.4	1648.4
75°	1345.0	1350.1
77.5°	1056.8	1056.8
80°	783.8	788.8
82.5°	541.0	551.2
85°	338.7	338.7
87.5°	156.8	141.5
90°	23.4	23.4
92.5°	93.7	75.1
95°	326.7	270.3
97.5°	782.9	675.6
100°	1128.0	1000.2
102.5°	1467.4	1357.9
105°	1900.3	1841.4
107.5°	2183.7	2198.0
110°	2291.8	2353.1



TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2301.6	2395.7
115°	2240.5	2371.1
117.5°	2111.0	2255.8
120°	2006.8	2147.5
122.5°	1905.2	2044.0
125°	1760.3	1888.2
127.5°	1630.1	1737.9
130°	1553.4	1653.0
132.5°	1483.6	1572.9
135°	1388.2	1465.1
137.5°	1311.6	1374.6
140°	1259.0	1317.9
142.5°	1215.6	1266.2
145°	1150.3	1188.6
147.5°	1100.2	1132.0
150°	1068.6	1094.4
152.5°	1041.7	1061.1
155°	1010.7	1023.6
157.5°	986.1	995.2
160°	971.6	976.8
162.5°	961.9	966.9
165°	948.2	953.4
167.5°	938.2	940.4
170°	935.4	935.4
172.5°	928.2	926.3
175°	923.8	923.8
177.5°	919.8	917.6
180°	917.6	917.6

TEST NUMBER: P936977

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-12-2700K

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	7.93	9.03	8.72	9.85	10.84	21.13	22.22	21.91	23.04	24.04
	3H	8.66	9.64	9.45	10.47	11.50	22.99	23.98	23.79	24.80	25.83
	4H	8.96	9.90	9.78	10.73	11.77	23.65	24.58	24.46	25.41	26.45
	6H	9.23	10.09	10.06	10.93	11.99	24.09	24.96	24.92	25.80	26.85
	8H	9.30	10.13	10.14	10.99	12.04	24.22	25.05	25.06	25.91	26.96
	12H	9.33	10.11	10.17	10.97	12.05	24.30	25.09	25.15	25.94	27.02
4H	2H	15.18	16.12	16.00	16.95	17.99	21.43	22.36	22.25	23.19	24.23
	3H	16.77	17.56	17.61	18.42	19.48	23.50	24.28	24.33	25.15	26.20
	4H	16.88	17.59	17.72	18.46	19.54	24.28	25.00	25.13	25.86	26.94
	6H	16.90	17.52	17.76	18.41	19.50	24.84	25.46	25.70	26.35	27.43
	8H	16.89	17.47	17.75	18.35	19.45	25.01	25.59	25.87	26.47	27.57
	12H	16.85	17.38	17.74	18.28	19.39	25.12	25.64	26.00	26.54	27.65
8H	4H	18.35	18.93	19.21	19.81	20.91	24.36	24.94	25.23	25.82	26.92
	6H	18.60	19.08	19.49	20.01	21.11	25.00	25.49	25.90	26.41	27.51
	8H	18.62	19.05	19.52	19.97	21.08	25.23	25.66	26.13	26.58	27.69
	12H	18.60	18.98	19.51	19.89	21.06	25.39	25.77	26.30	26.68	27.85
12H	4H	18.50	19.03	19.39	19.93	21.04	24.32	24.85	25.21	25.75	26.86
	6H	18.86	19.29	19.77	20.21	21.33	24.99	25.42	25.89	26.34	27.45
	8H	18.94	19.32	19.85	20.23	21.40	25.24	25.61	26.14	26.52	27.69

END OF REPORT