

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: P938109

Luminaire Tested: SQ4-FB-125U-125D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

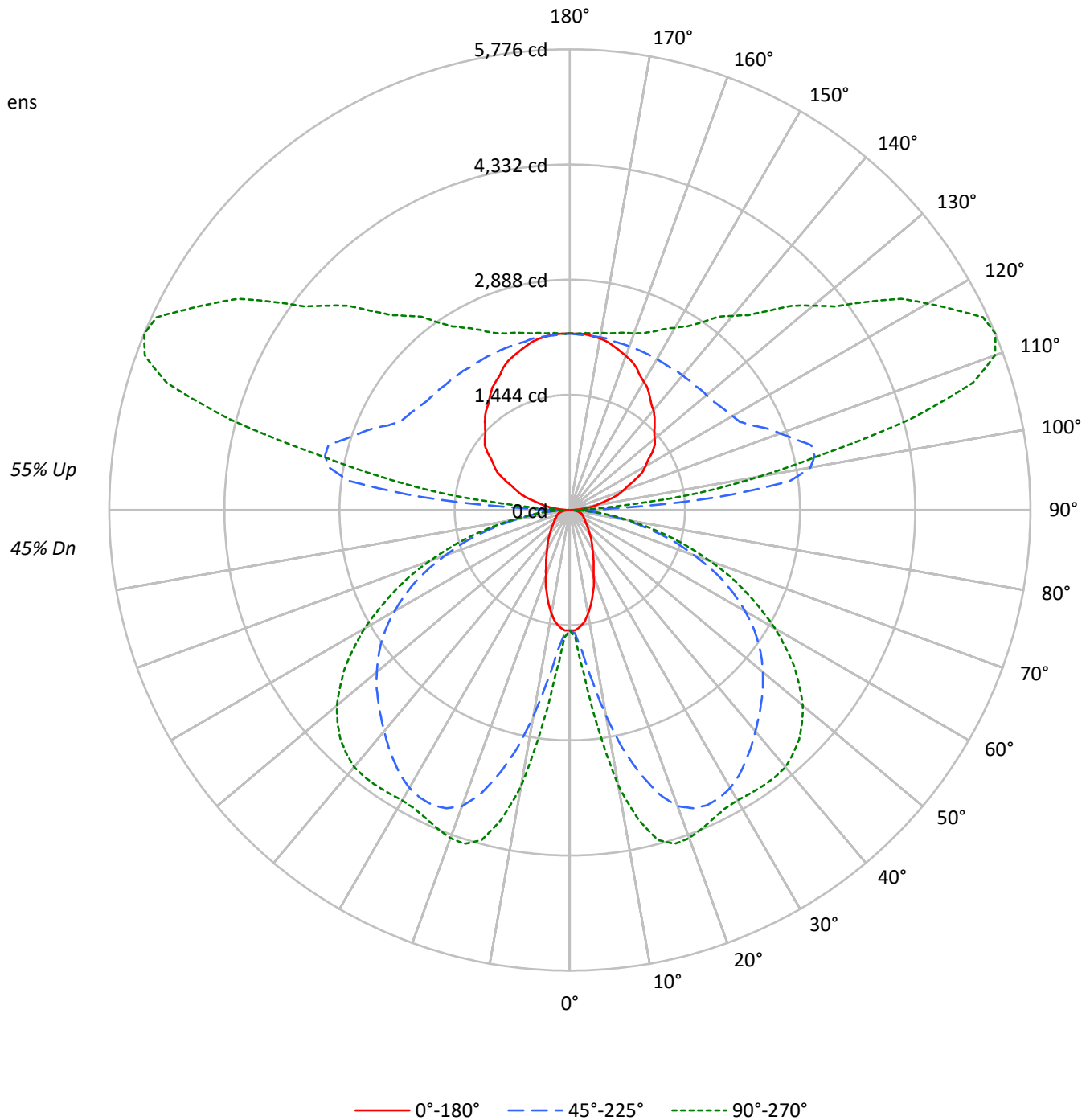
Test Method: LM-79-2019  
Report Number: P938109  
REPORT IS A COMBINATION OF REPORTS P933592 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-125D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26028.1 lumens  
Efficiency: N/A  
Efficacy: 115.4 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): 225.6  
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

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### Luminous Intensity Polar Plot





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**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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37	37	37	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13	13	13	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

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

	0°	45°	90°
0°	4669	4669	4669
5°	4562	5397	6275
10°	4140	7869	10404
15°	3520	10284	12562
20°	2867	11920	12803
25°	2392	12477	12543
30°	2019	12559	12519
35°	1785	12354	12843
40°	1557	12086	13177
45°	1410	11891	13229
50°	1295	11717	13010
55°	1242	11459	12433
60°	1273	10961	11523
65°	1326	10201	10271
70°	1415	8902	8677
75°	1574	7265	6772
80°	1733	5045	4563
85°	1575	2681	2335

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13229 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.2	0.8
10°-20°	865.3	3.3
20°-30°	1513.6	5.8
30°-40°	1948.4	7.5
40°-50°	2176.4	8.4
50°-60°	2084.4	8.0
60°-70°	1651.9	6.3
70°-80°	971.4	3.7
80°-90°	278.3	1.1
90°-100°	1078.5	4.1
100°-110°	2835.5	10.9
110°-120°	2940.1	11.3
120°-130°	2358.3	9.1
130°-140°	1850.4	7.1
140°-150°	1420.3	5.5
150°-160°	1022.8	3.9
160°-170°	625.8	2.4
170°-180°	211.4	0.8
0°-30°	2574.2	9.9
0°-40°	4522.6	17.4
0°-60°	8783.4	33.7
0°-90°	11685.0	44.9
90°-120°	6854.0	26.3
90°-150°	12482.9	48.0
90°-180°	14343.0	55.1
0°-180°	26028.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1470	1577	1776	2009	2082	136
15°	1102	2034	3426	4154	4286	307
25°	704	2305	4082	4261	4266	324
35°	476	2203	3844	4062	4222	297
45°	325	1757	3397	3892	4067	252
55°	233	1116	2883	3349	3441	212
65°	184	592	2140	2407	2441	183
75°	136	364	1174	1291	1296	142
85°	49	112	291	320	325	51
90°	15	42	113	56	56	16
95°	142	558	1858	958	652	158
105°	511	774	3135	4759	4440	542
115°	907	1102	2511	5009	5717	896
125°	1262	1415	2284	3859	4553	1121
135°	1504	1656	2213	3115	3533	1164
145°	1745	1856	2184	2658	2866	1093
155°	1972	2027	2184	2398	2468	906
165°	2128	2156	2184	2270	2299	601
175°	2213	2213	2199	2227	2227	210
180°	2213	2213	2213	2213	2213	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4
2.5°	1509.4	1509.4	1519.1	1524.0	1533.6	1538.5	1548.2	1557.9	1587.1	1591.9	1601.6
5°	1470.5	1489.9	1553.0	1577.3	1645.3	1737.5	1776.3	1839.4	1970.4	2009.3	2033.5
7.5°	1412.3	1456.0	1611.3	1650.2	1820.0	2062.7	2164.6	2300.5	2509.2	2611.1	2693.6
10°	1320.1	1412.3	1689.0	1781.1	2057.8	2426.6	2615.9	2805.2	3120.7	3261.4	3314.8
12.5°	1218.2	1368.6	1771.5	1897.7	2295.6	2834.3	3062.5	3271.1	3630.3	3819.6	3848.7
15°	1101.7	1305.5	1849.1	2033.5	2548.0	3174.1	3426.4	3683.7	4018.5	4154.5	4188.4
17.5°	999.8	1257.0	1921.9	2116.0	2742.1	3479.8	3737.1	3950.6	4222.4	4314.6	4338.9
20°	873.6	1179.3	1970.4	2222.8	2946.0	3703.1	3950.6	4115.6	4300.1	4358.3	4368.0
22.5°	781.3	1096.8	1999.6	2261.6	3081.9	3839.0	4047.7	4178.7	4304.9	4324.3	4329.2
25°	703.7	1004.7	1994.7	2305.3	3198.3	3921.5	4081.6	4178.7	4251.5	4261.2	4261.2
27.5°	631.0	902.8	1975.3	2315.0	3285.7	3940.9	4067.1	4135.0	4169.0	4188.4	4188.4
30°	567.9	805.6	1926.7	2295.6	3324.5	3921.5	4023.4	4057.4	4091.4	4120.5	4135.0
32.5°	519.3	713.5	1854.0	2256.8	3329.4	3872.9	3945.8	3965.2	4013.7	4081.6	4105.9
35°	475.6	621.2	1771.5	2203.4	3300.3	3795.3	3843.8	3863.3	3960.3	4062.2	4096.2
37.5°	431.9	553.2	1664.7	2111.2	3256.6	3703.1	3737.1	3771.0	3921.5	4042.8	4081.6
40°	388.2	495.0	1538.5	2009.3	3188.6	3591.5	3620.6	3674.0	3872.9	4013.7	4052.5
42.5°	354.3	446.5	1402.6	1902.5	3101.3	3465.3	3509.0	3586.6	3814.7	3965.2	4008.9
45°	325.1	398.0	1257.0	1756.9	2989.6	3334.2	3397.3	3504.1	3746.8	3892.4	3931.2
47.5°	296.1	364.0	1106.6	1606.5	2868.3	3203.2	3285.7	3407.0	3654.6	3795.3	3829.3
50°	271.8	330.0	956.1	1446.3	2737.3	3062.5	3159.5	3285.7	3538.1	3669.1	3712.8
52.5°	252.4	300.9	815.4	1286.1	2586.8	2916.9	3028.5	3159.5	3397.3	3523.5	3552.6
55°	233.0	276.7	694.1	1116.2	2431.5	2761.5	2882.9	3009.1	3242.0	3348.8	3368.2
57.5°	223.2	257.3	592.1	956.1	2266.5	2586.8	2722.7	2839.2	3057.6	3140.1	3159.5
60°	208.7	242.6	514.4	820.2	2086.9	2421.8	2538.3	2654.8	2839.2	2907.1	2921.7
62.5°	194.2	233.0	456.2	689.2	1902.5	2227.7	2344.1	2450.9	2606.2	2654.8	2674.2
65°	184.4	223.2	412.5	592.1	1713.2	2023.9	2140.3	2232.5	2358.7	2407.2	2417.0
67.5°	174.8	213.6	378.6	509.6	1524.0	1820.0	1907.3	1994.7	2091.8	2140.3	2145.2
70°	160.1	203.8	349.4	451.3	1329.8	1587.1	1659.8	1752.1	1829.7	1854.0	1868.5
72.5°	150.5	189.3	330.0	407.6	1130.9	1363.8	1431.7	1485.1	1553.0	1577.3	1577.3
75°	135.8	169.9	310.6	364.0	926.9	1116.2	1174.5	1227.9	1281.2	1291.0	1276.5
77.5°	121.3	150.5	266.9	305.7	723.1	883.3	931.8	961.0	1004.7	1014.3	1019.2
80°	101.9	131.1	208.7	237.9	524.2	650.4	684.3	708.6	747.4	747.4	757.2
82.5°	77.6	101.9	150.5	169.9	354.3	446.5	475.6	490.1	514.4	514.4	514.4
85°	48.6	63.1	97.0	111.7	213.6	271.8	291.2	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.7	140.7	150.5	150.5	145.6	140.7
90°	14.8	26.7	38.6	41.6	65.3	96.9	112.8	100.3	75.2	56.4	56.4
92.5°	59.4	160.3	261.4	286.6	403.0	558.0	635.5	557.0	399.9	282.1	270.9
95°	142.5	327.3	512.1	558.3	991.4	1568.9	1857.6	1657.6	1257.7	957.8	923.8
97.5°	246.5	409.5	572.5	613.3	1335.4	2298.3	2779.8	2653.4	2400.6	2211.0	2146.3
100°	326.7	474.6	622.4	659.4	1460.7	2529.2	3063.4	3072.7	3091.1	3105.0	3027.9
102.5°	395.0	533.0	670.8	705.3	1518.1	2601.8	3143.6	3304.6	3626.7	3868.3	3802.3
105°	510.8	627.6	744.4	773.7	1560.7	2610.0	3134.6	3495.6	4217.7	4759.2	4723.7
107.5°	629.6	738.5	847.4	874.6	1568.6	2493.9	2956.5	3460.1	4467.1	5222.4	5231.0
110°	709.8	808.1	906.5	931.0	1556.7	2390.9	2808.0	3371.0	4496.8	5341.3	5378.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	788.5	882.2	975.9	999.3	1557.1	2301.0	2672.9	3249.1	4401.3	5265.6	5322.3
115°	907.2	993.7	1080.2	1101.8	1571.6	2197.8	2511.0	3066.1	4176.1	5008.7	5087.4
117.5°	1024.6	1103.1	1181.7	1201.3	1600.7	2133.3	2399.7	2900.6	3902.4	4653.7	4741.0
120°	1092.9	1166.8	1240.8	1259.2	1624.5	2111.6	2355.1	2812.8	3728.2	4414.7	4499.5
122.5°	1159.7	1234.3	1308.9	1327.5	1658.7	2100.2	2321.0	2733.1	3557.4	4175.6	4259.3
125°	1262.2	1330.2	1398.1	1415.2	1704.7	2090.8	2283.8	2633.9	3334.1	3859.3	3936.3
127.5°	1345.4	1414.0	1482.7	1499.8	1750.7	2085.3	2252.6	2553.2	3154.4	3605.4	3670.4
130°	1389.9	1463.8	1537.7	1556.2	1784.4	2088.7	2240.8	2508.4	3043.6	3445.0	3505.1
132.5°	1435.9	1509.8	1583.8	1602.3	1811.6	2090.8	2230.3	2469.9	2949.1	3308.4	3362.3
135°	1504.3	1571.6	1638.9	1655.7	1841.4	2088.9	2212.6	2413.2	2814.5	3115.4	3161.8
137.5°	1574.1	1640.7	1707.3	1724.0	1885.8	2101.7	2209.6	2379.2	2718.4	2972.8	3010.7
140°	1631.9	1693.3	1754.6	1770.0	1913.1	2103.8	2199.2	2345.6	2638.7	2858.4	2893.9
142.5°	1676.4	1733.2	1790.0	1804.2	1935.8	2111.4	2199.2	2327.9	2585.3	2778.3	2808.8
145°	1744.8	1794.3	1843.8	1856.2	1965.5	2111.4	2184.4	2289.6	2500.1	2658.0	2681.1
147.5°	1813.1	1861.2	1909.4	1921.5	2009.1	2126.0	2184.4	2267.2	2432.8	2557.0	2576.1
150°	1857.6	1901.2	1944.8	1955.7	2031.9	2133.5	2184.4	2254.3	2394.2	2499.1	2514.6
152.5°	1903.7	1936.7	1969.7	1978.0	2046.8	2138.5	2184.4	2244.1	2363.5	2453.1	2464.9
155°	1971.9	1996.4	2020.8	2026.9	2079.4	2149.4	2184.4	2231.9	2326.9	2398.1	2405.9
157.5°	2022.5	2046.2	2070.0	2076.0	2112.1	2160.3	2184.4	2221.3	2295.2	2350.6	2356.1
160°	2056.6	2075.1	2093.6	2098.2	2126.9	2165.2	2184.4	2216.0	2279.4	2326.9	2330.1
162.5°	2090.8	2104.6	2118.5	2121.9	2142.8	2170.5	2184.4	2211.1	2264.6	2304.6	2307.6
165°	2127.9	2140.4	2152.9	2156.1	2165.5	2178.1	2184.4	2203.5	2241.7	2270.4	2273.6
167.5°	2162.1	2168.0	2173.9	2175.4	2183.3	2193.9	2199.2	2211.7	2236.8	2255.6	2256.9
170°	2184.4	2190.3	2196.2	2197.7	2198.1	2198.8	2199.2	2211.7	2236.8	2255.6	2255.6
172.5°	2196.2	2197.6	2198.9	2199.2	2199.2	2199.2	2199.2	2209.1	2228.9	2243.7	2242.6
175°	2212.6	2212.6	2212.6	2212.6	2208.1	2202.1	2199.2	2205.5	2218.0	2227.4	2227.4
177.5°	2212.6	2212.6	2212.6	2212.6	2209.1	2204.4	2202.1	2207.1	2217.0	2224.4	2223.1
180°	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1509.4	1509.4
2.5°	1611.3	1601.6
5°	2072.4	2082.1
7.5°	2790.7	2785.8
10°	3470.1	3513.8
12.5°	3965.2	3974.9
15°	4266.1	4285.5
17.5°	4382.6	4387.4
20°	4387.4	4377.7
22.5°	4334.0	4324.3
25°	4270.9	4266.1
27.5°	4212.7	4217.6
30°	4188.4	4203.0
32.5°	4188.4	4212.7
35°	4198.1	4222.4
37.5°	4193.3	4222.4
40°	4173.9	4207.8
42.5°	4120.5	4144.7
45°	4038.0	4067.1
47.5°	3931.2	3950.6
50°	3795.3	3814.7
52.5°	3625.4	3630.3
55°	3421.6	3441.0
57.5°	3203.2	3208.0
60°	2960.5	2975.1
62.5°	2703.3	2703.3
65°	2431.5	2441.2
67.5°	2150.0	2174.3
70°	1863.7	1868.5
72.5°	1582.2	1582.2
75°	1291.0	1295.9
77.5°	1014.3	1014.3
80°	752.3	757.2
82.5°	519.3	529.1
85°	325.1	325.1
87.5°	150.5	135.8
90°	56.4	56.4
92.5°	226.0	181.2
95°	787.8	651.9
97.5°	1887.6	1628.9
100°	2719.7	2411.5
102.5°	3538.3	3274.3
105°	4581.8	4440.0
107.5°	5265.4	5299.7
110°	5526.1	5673.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5549.3	5776.3
115°	5402.2	5717.0
117.5°	5090.1	5439.3
120°	4838.7	5177.9
122.5°	4593.9	4928.5
125°	4244.5	4552.8
127.5°	3930.4	4190.4
130°	3745.3	3985.6
132.5°	3577.4	3792.5
135°	3347.1	3532.6
137.5°	3162.5	3314.4
140°	3035.9	3177.7
142.5°	2930.9	3053.0
145°	2773.5	2865.9
147.5°	2652.7	2729.3
150°	2576.7	2638.8
152.5°	2511.7	2558.5
155°	2436.9	2467.9
157.5°	2377.9	2399.7
160°	2342.6	2355.1
162.5°	2319.4	2331.3
165°	2286.1	2298.7
167.5°	2262.2	2267.4
170°	2255.6	2255.6
172.5°	2237.9	2233.3
175°	2227.4	2227.4
177.5°	2217.8	2212.6
180°	2212.6	2212.6



TEST NUMBER: P938109  
 CATALOG NUMBER: SQ4-FB-125U-125D-830-1D-UNV-STD-W-12

**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	5.88	6.73	6.87	7.74	9.08	19.07	19.92	20.06	20.93	22.27
	3H	6.58	7.35	7.59	8.37	9.73	20.91	21.68	21.92	22.70	24.06
	4H	6.88	7.61	7.90	8.63	9.99	21.56	22.29	22.58	23.31	24.68
	6H	7.13	7.80	8.16	8.82	10.21	22.00	22.67	23.02	23.69	25.07
	8H	7.20	7.84	8.23	8.88	10.25	22.12	22.76	23.15	23.80	25.18
	12H	7.22	7.82	8.25	8.86	10.26	22.19	22.80	23.23	23.83	25.23
4H	2H	13.10	13.83	14.12	14.85	16.21	19.34	20.07	20.36	21.09	22.46
	3H	14.67	15.27	15.70	16.32	17.70	21.39	22.00	22.42	23.05	24.43
	4H	14.76	15.32	15.80	16.36	17.76	22.16	22.72	23.20	23.76	25.16
	6H	14.77	15.25	15.82	16.32	17.71	22.71	23.19	23.75	24.25	25.65
	8H	14.75	15.20	15.80	16.25	17.67	22.87	23.32	23.92	24.38	25.79
	12H	14.70	15.11	15.77	16.18	17.60	22.97	23.37	24.03	24.44	25.86
8H	4H	16.21	16.66	17.26	17.71	19.13	22.22	22.67	23.27	23.73	25.14
	6H	16.45	16.82	17.52	17.92	19.33	22.86	23.23	23.93	24.33	25.74
	8H	16.47	16.79	17.55	17.88	19.31	23.08	23.40	24.16	24.49	25.92
	12H	16.44	16.72	17.52	17.80	19.27	23.23	23.51	24.31	24.59	26.06
12H	4H	16.35	16.76	17.42	17.83	19.25	22.17	22.58	23.24	23.65	25.07
	6H	16.71	17.04	17.79	18.12	19.55	22.84	23.17	23.92	24.25	25.68
	8H	16.78	17.07	17.86	18.14	19.62	23.07	23.36	24.16	24.44	25.91