

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: P938173

Luminaire Tested: SQ4-FB-125U-125D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

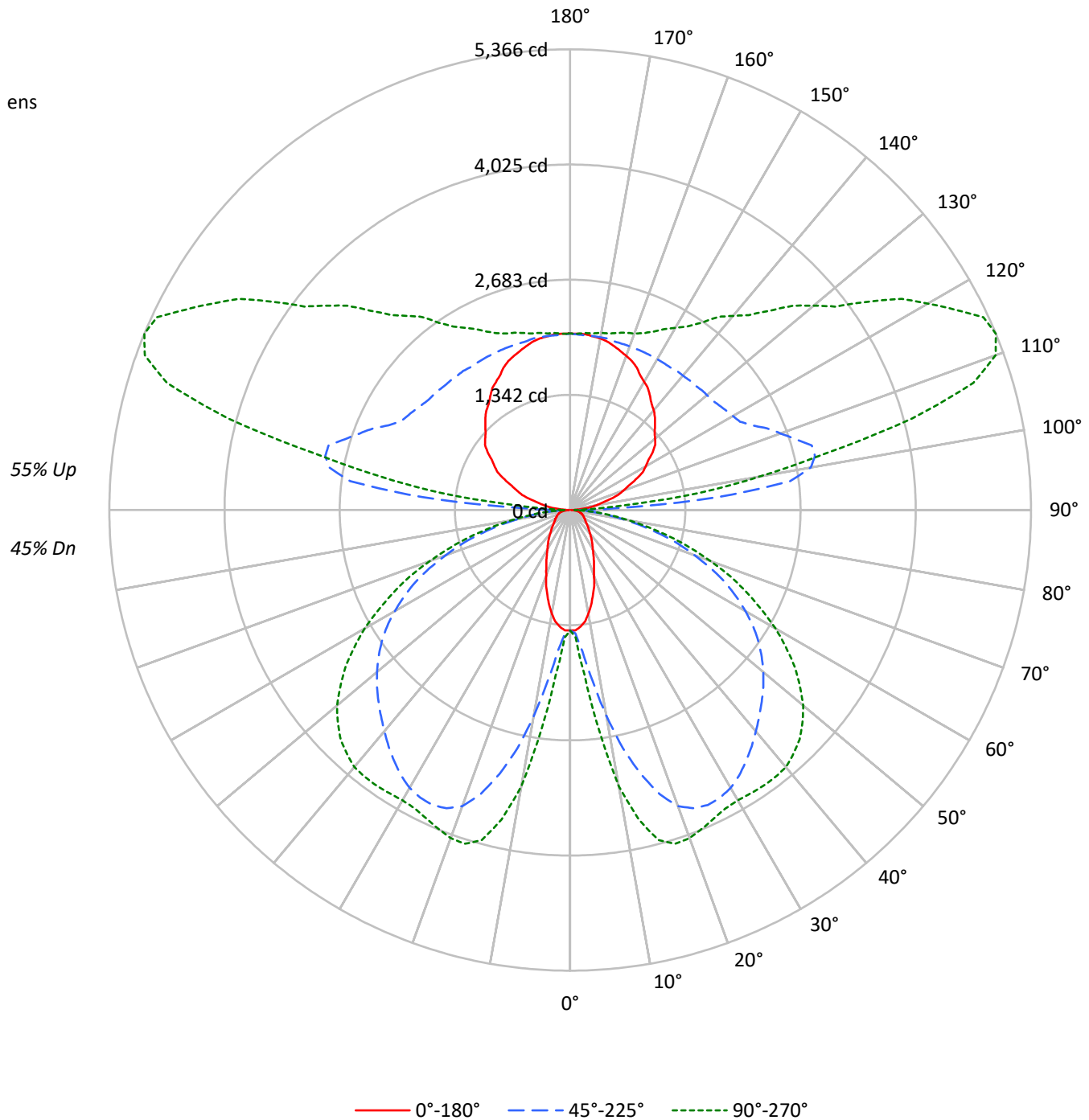
Test Method: LM-79-2019  
Report Number: P938173  
REPORT IS A COMBINATION OF REPORTS P933592 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-125D-940-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24176.7 lumens  
Efficiency: N/A  
Efficacy: 107.2 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°	4337	4337	4337
5°	4238	5014	5829
10°	3846	7310	9663
15°	3270	9552	11669
20°	2663	11072	11892
25°	2222	11590	11650
30°	1875	11666	11628
35°	1659	11475	11929
40°	1446	11226	12240
45°	1310	11046	12288
50°	1203	10883	12085
55°	1153	10645	11549
60°	1182	10181	10703
65°	1232	9476	9541
70°	1315	8269	8060
75°	1463	6749	6290
80°	1611	4686	4239
85°	1461	2491	2169

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12288 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.4	0.8
10°-20°	803.8	3.3
20°-30°	1405.9	5.8
30°-40°	1809.9	7.5
40°-50°	2021.6	8.4
50°-60°	1936.2	8.0
60°-70°	1534.4	6.3
70°-80°	902.3	3.7
80°-90°	258.5	1.1
90°-100°	1001.8	4.1
100°-110°	2633.8	10.9
110°-120°	2730.9	11.3
120°-130°	2190.5	9.1
130°-140°	1718.8	7.1
140°-150°	1319.2	5.5
150°-160°	950.1	3.9
160°-170°	581.3	2.4
170°-180°	196.4	0.8
0°-30°	2391.1	9.9
0°-40°	4200.9	17.4
0°-60°	8158.7	33.7
0°-90°	10853.9	44.9
90°-120°	6366.5	26.3
90°-150°	11595.0	48.0
90°-180°	13323.0	55.1
0°-180°	24176.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1366	1465	1650	1866	1934	126
15°	1023	1889	3183	3859	3981	285
25°	654	2141	3791	3958	3963	301
35°	442	2047	3570	3773	3922	276
45°	302	1632	3156	3616	3778	234
55°	216	1037	2678	3111	3196	197
65°	171	550	1988	2236	2268	170
75°	126	338	1091	1199	1204	132
85°	45	104	270	298	302	48
90°	14	39	105	52	52	14
95°	132	519	1726	890	606	147
105°	474	719	2912	4421	4124	503
115°	843	1023	2332	4652	5310	832
125°	1172	1314	2121	3585	4229	1041
135°	1397	1538	2055	2894	3281	1081
145°	1621	1724	2029	2469	2662	1015
155°	1832	1883	2029	2228	2292	842
165°	1976	2003	2029	2109	2135	558
175°	2055	2055	2043	2069	2069	195
180°	2055	2055	2055	2055	2055	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1
2.5°	1402.1	1402.1	1411.0	1415.6	1424.5	1429.1	1438.1	1447.1	1474.2	1478.7	1487.7
5°	1365.9	1383.9	1442.6	1465.1	1528.2	1613.9	1650.0	1708.6	1830.3	1866.4	1888.9
7.5°	1311.8	1352.4	1496.7	1532.8	1690.6	1915.9	2010.6	2136.9	2330.7	2425.4	2502.0
10°	1226.2	1311.8	1568.8	1654.4	1911.4	2254.0	2429.8	2605.7	2898.7	3029.4	3079.1
12.5°	1131.6	1271.3	1645.5	1762.7	2132.4	2632.7	2844.6	3038.5	3372.1	3547.9	3574.9
15°	1023.3	1212.7	1717.6	1888.9	2366.8	2948.3	3182.7	3421.6	3732.7	3859.0	3890.5
17.5°	928.7	1167.6	1785.2	1965.5	2547.1	3232.3	3471.3	3669.6	3922.0	4007.7	4030.3
20°	811.5	1095.4	1830.3	2064.7	2736.5	3439.7	3669.6	3822.8	3994.2	4048.3	4057.3
22.5°	725.8	1018.8	1857.3	2100.7	2862.6	3565.9	3759.8	3881.4	3998.7	4016.7	4021.2
25°	653.7	933.2	1852.8	2141.3	2970.8	3642.6	3791.3	3881.4	3949.1	3958.1	3958.1
27.5°	586.1	838.5	1834.8	2150.4	3052.0	3660.6	3777.8	3840.9	3872.5	3890.5	3890.5
30°	527.5	748.3	1789.7	2132.4	3088.0	3642.6	3737.2	3768.8	3800.4	3827.4	3840.9
32.5°	482.4	662.7	1722.1	2096.3	3092.5	3597.5	3665.1	3683.2	3728.2	3791.3	3813.9
35°	441.8	577.0	1645.5	2046.7	3065.6	3525.4	3570.4	3588.5	3678.6	3773.3	3804.8
37.5°	401.2	513.9	1546.3	1961.1	3025.0	3439.7	3471.3	3502.8	3642.6	3755.3	3791.3
40°	360.6	459.8	1429.1	1866.4	2961.8	3336.0	3363.0	3412.7	3597.5	3728.2	3764.2
42.5°	329.1	414.8	1302.9	1767.2	2880.7	3218.8	3259.4	3331.5	3543.4	3683.2	3723.7
45°	302.0	369.7	1167.6	1632.0	2777.0	3097.1	3155.7	3254.9	3480.2	3615.5	3651.5
47.5°	275.0	338.2	1027.9	1492.2	2664.3	2975.3	3052.0	3164.7	3394.6	3525.4	3556.9
50°	252.5	306.5	888.1	1343.5	2542.6	2844.6	2934.8	3052.0	3286.4	3408.1	3448.7
52.5°	234.4	279.5	757.4	1194.6	2402.8	2709.4	2813.1	2934.8	3155.7	3272.9	3299.9
55°	216.4	257.0	644.7	1036.8	2258.5	2565.1	2677.9	2795.1	3011.4	3110.6	3128.6
57.5°	207.3	239.0	550.0	888.1	2105.3	2402.8	2529.0	2637.3	2840.1	2916.7	2934.8
60°	193.9	225.4	477.8	761.9	1938.5	2249.6	2357.7	2466.0	2637.3	2700.3	2713.9
62.5°	180.4	216.4	423.8	640.2	1767.2	2069.2	2177.4	2276.6	2420.9	2466.0	2484.0
65°	171.3	207.3	383.2	550.0	1591.4	1879.9	1988.1	2073.7	2191.0	2236.0	2245.0
67.5°	162.3	198.4	351.6	473.4	1415.6	1690.6	1771.6	1852.8	1943.0	1988.1	1992.6
70°	148.7	189.3	324.6	419.2	1235.2	1474.2	1541.7	1627.4	1699.5	1722.1	1735.6
72.5°	139.8	175.8	306.5	378.6	1050.4	1266.8	1329.9	1379.5	1442.6	1465.1	1465.1
75°	126.2	157.8	288.5	338.2	861.0	1036.8	1091.0	1140.5	1190.1	1199.2	1185.7
77.5°	112.7	139.8	247.9	284.0	671.7	820.5	865.5	892.6	933.2	942.2	946.7
80°	94.7	121.7	193.9	220.9	486.9	604.1	635.6	658.2	694.2	694.2	703.3
82.5°	72.1	94.7	139.8	157.8	329.1	414.8	441.8	455.3	477.8	477.8	477.8
85°	45.1	58.6	90.1	103.7	198.4	252.5	270.5	275.0	293.0	297.6	297.6
87.5°	22.6	31.5	58.6	63.1	103.7	130.7	130.7	139.8	139.8	135.2	130.7
90°	13.8	24.8	35.9	38.6	60.7	90.0	104.8	93.2	69.9	52.4	52.4
92.5°	55.1	148.9	242.8	266.2	374.3	518.3	590.3	517.3	371.5	262.0	251.7
95°	132.4	304.1	475.7	518.6	920.9	1457.3	1725.5	1539.7	1168.3	889.7	858.1
97.5°	228.9	380.3	531.8	569.7	1240.4	2134.8	2582.0	2464.6	2229.9	2053.8	1993.6
100°	303.4	440.8	578.1	612.5	1356.8	2349.3	2845.5	2854.1	2871.3	2884.1	2812.6
102.5°	366.9	495.1	623.1	655.2	1410.1	2416.7	2920.0	3069.5	3368.7	3593.1	3531.8
105°	474.5	583.0	691.5	718.7	1449.7	2424.3	2911.7	3247.0	3917.7	4420.6	4387.7
107.5°	584.8	686.0	787.1	812.4	1457.0	2316.5	2746.2	3213.9	4149.4	4851.0	4859.0
110°	659.3	750.6	842.0	864.8	1445.9	2220.8	2608.2	3131.2	4177.0	4961.3	4995.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	732.4	819.4	906.5	928.2	1446.4	2137.3	2482.8	3018.0	4088.3	4891.0	4943.8
115°	842.7	923.0	1003.4	1023.4	1459.8	2041.5	2332.4	2848.0	3879.1	4652.4	4725.5
117.5°	951.8	1024.7	1097.7	1115.9	1486.9	1981.6	2229.0	2694.3	3624.8	4322.7	4403.8
120°	1015.2	1083.8	1152.5	1169.7	1509.0	1961.4	2187.6	2612.8	3463.0	4100.7	4179.5
122.5°	1077.2	1146.5	1215.8	1233.1	1540.7	1950.8	2155.9	2538.7	3304.3	3878.6	3956.3
125°	1172.4	1235.6	1298.7	1314.5	1583.5	1942.1	2121.3	2446.5	3097.0	3584.8	3656.3
127.5°	1249.7	1313.4	1377.2	1393.1	1626.2	1937.0	2092.4	2371.6	2930.0	3348.9	3409.3
130°	1291.1	1359.7	1428.3	1445.5	1657.5	1940.1	2081.4	2329.9	2827.1	3200.0	3255.8
132.5°	1333.8	1402.4	1471.1	1488.3	1682.8	1942.1	2071.7	2294.2	2739.3	3073.1	3123.1
135°	1397.3	1459.8	1522.3	1537.9	1710.4	1940.3	2055.2	2241.6	2614.3	2893.8	2936.9
137.5°	1462.1	1524.0	1585.9	1601.3	1751.7	1952.2	2052.4	2210.0	2525.0	2761.3	2796.6
140°	1515.8	1572.8	1629.8	1644.1	1777.0	1954.1	2042.8	2178.8	2451.0	2655.1	2688.1
142.5°	1557.2	1609.9	1662.7	1675.8	1798.1	1961.2	2042.8	2162.3	2401.4	2580.7	2609.0
145°	1620.7	1666.7	1712.7	1724.1	1825.7	1961.2	2029.0	2126.8	2322.3	2468.9	2490.4
147.5°	1684.1	1728.8	1773.6	1784.8	1866.2	1974.7	2029.0	2105.9	2259.8	2375.1	2392.9
150°	1725.5	1766.0	1806.5	1816.6	1887.4	1981.7	2029.0	2094.0	2223.9	2321.3	2335.7
152.5°	1768.3	1798.9	1829.6	1837.3	1901.2	1986.4	2029.0	2084.5	2195.4	2278.6	2289.5
155°	1831.7	1854.4	1877.1	1882.7	1931.5	1996.5	2029.0	2073.1	2161.4	2227.5	2234.7
157.5°	1878.7	1900.7	1922.8	1928.3	1961.9	2006.6	2029.0	2063.3	2131.9	2183.4	2188.5
160°	1910.4	1927.5	1944.7	1949.0	1975.6	2011.2	2029.0	2058.4	2117.3	2161.4	2164.3
162.5°	1942.1	1954.9	1967.8	1971.0	1990.4	2016.1	2029.0	2053.9	2103.5	2140.7	2143.5
165°	1976.5	1988.1	1999.8	2002.7	2011.5	2023.1	2029.0	2046.8	2082.3	2108.9	2111.8
167.5°	2008.3	2013.8	2019.3	2020.6	2028.0	2037.9	2042.8	2054.4	2077.7	2095.1	2096.4
170°	2029.0	2034.5	2040.0	2041.3	2041.8	2042.4	2042.8	2054.4	2077.7	2095.1	2095.1
172.5°	2040.0	2041.2	2042.5	2042.8	2042.8	2042.8	2042.8	2052.0	2070.4	2084.1	2083.1
175°	2055.2	2055.2	2055.2	2055.2	2051.0	2045.5	2042.8	2048.6	2060.2	2069.0	2069.0
177.5°	2055.2	2055.2	2055.2	2055.2	2052.0	2047.6	2045.5	2050.1	2059.3	2066.2	2065.0
180°	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1402.1	1402.1
2.5°	1496.7	1487.7
5°	1925.0	1934.0
7.5°	2592.2	2587.6
10°	3223.3	3263.8
12.5°	3683.2	3692.1
15°	3962.6	3980.6
17.5°	4070.9	4075.3
20°	4075.3	4066.3
22.5°	4025.7	4016.7
25°	3967.1	3962.6
27.5°	3913.1	3917.6
30°	3890.5	3904.0
32.5°	3890.5	3913.1
35°	3899.5	3922.0
37.5°	3895.0	3922.0
40°	3877.0	3908.5
42.5°	3827.4	3849.9
45°	3750.7	3777.8
47.5°	3651.5	3669.6
50°	3525.4	3543.4
52.5°	3367.6	3372.1
55°	3178.2	3196.3
57.5°	2975.3	2979.9
60°	2750.0	2763.5
62.5°	2511.0	2511.0
65°	2258.5	2267.6
67.5°	1997.1	2019.7
70°	1731.2	1735.6
72.5°	1469.6	1469.6
75°	1199.2	1203.7
77.5°	942.2	942.2
80°	698.8	703.3
82.5°	482.4	491.4
85°	302.0	302.0
87.5°	139.8	126.2
90°	52.4	52.4
92.5°	209.9	168.3
95°	731.8	605.5
97.5°	1753.4	1513.1
100°	2526.3	2240.0
102.5°	3286.6	3041.4
105°	4255.9	4124.1
107.5°	4890.8	4922.7
110°	5133.0	5270.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5154.6	5365.5
115°	5017.9	5310.3
117.5°	4728.1	5052.4
120°	4494.5	4809.6
122.5°	4267.1	4577.9
125°	3942.6	4228.9
127.5°	3650.8	3892.4
130°	3478.9	3702.1
132.5°	3322.9	3522.7
135°	3109.1	3281.3
137.5°	2937.6	3078.6
140°	2819.9	2951.7
142.5°	2722.4	2835.8
145°	2576.2	2662.0
147.5°	2464.0	2535.2
150°	2393.4	2451.1
152.5°	2333.0	2376.6
155°	2263.6	2292.4
157.5°	2208.7	2229.0
160°	2176.0	2187.6
162.5°	2154.5	2165.5
165°	2123.5	2135.2
167.5°	2101.3	2106.2
170°	2095.1	2095.1
172.5°	2078.7	2074.5
175°	2069.0	2069.0
177.5°	2060.1	2055.2
180°	2055.2	2055.2



TEST NUMBER: P938173  
 CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-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	5.62	6.47	6.61	7.48	8.82	18.81	19.66	19.81	20.67	22.01
	3H	6.33	7.09	7.33	8.11	9.47	20.66	21.42	21.66	22.44	23.80
	4H	6.62	7.35	7.64	8.37	9.74	21.31	22.03	22.32	23.05	24.42
	6H	6.87	7.54	7.90	8.57	9.95	21.74	22.41	22.77	23.43	24.82
	8H	6.94	7.58	7.97	8.62	10.00	21.86	22.50	22.90	23.54	24.92
	12H	6.96	7.56	8.00	8.60	10.00	21.93	22.54	22.97	23.58	24.98
4H	2H	12.84	13.57	13.87	14.59	15.96	19.09	19.81	20.11	20.83	22.20
	3H	14.41	15.02	15.44	16.07	17.45	21.14	21.74	22.17	22.79	24.17
	4H	14.50	15.06	15.54	16.10	17.51	21.91	22.46	22.95	23.50	24.91
	6H	14.51	14.99	15.56	16.06	17.46	22.45	22.93	23.50	23.99	25.39
	8H	14.49	14.94	15.54	16.00	17.41	22.61	23.06	23.66	24.12	25.53
	12H	14.45	14.85	15.52	15.92	17.34	22.71	23.12	23.78	24.19	25.61
8H	4H	15.95	16.40	17.00	17.46	18.87	21.97	22.41	23.02	23.47	24.89
	6H	16.19	16.56	17.27	17.66	19.08	22.60	22.97	23.67	24.07	25.48
	8H	16.21	16.54	17.29	17.62	19.05	22.82	23.15	23.90	24.23	25.66
	12H	16.18	16.47	17.26	17.54	19.02	22.97	23.26	24.05	24.33	25.81
12H	4H	16.10	16.50	17.16	17.57	18.99	21.92	22.32	22.99	23.40	24.82
	6H	16.45	16.78	17.53	17.86	19.29	22.58	22.91	23.66	23.99	25.42
	8H	16.52	16.81	17.61	17.89	19.36	22.81	23.10	23.90	24.18	25.65