

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: P938430

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938430
REPORT IS A COMBINATION OF REPORTS P933623 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

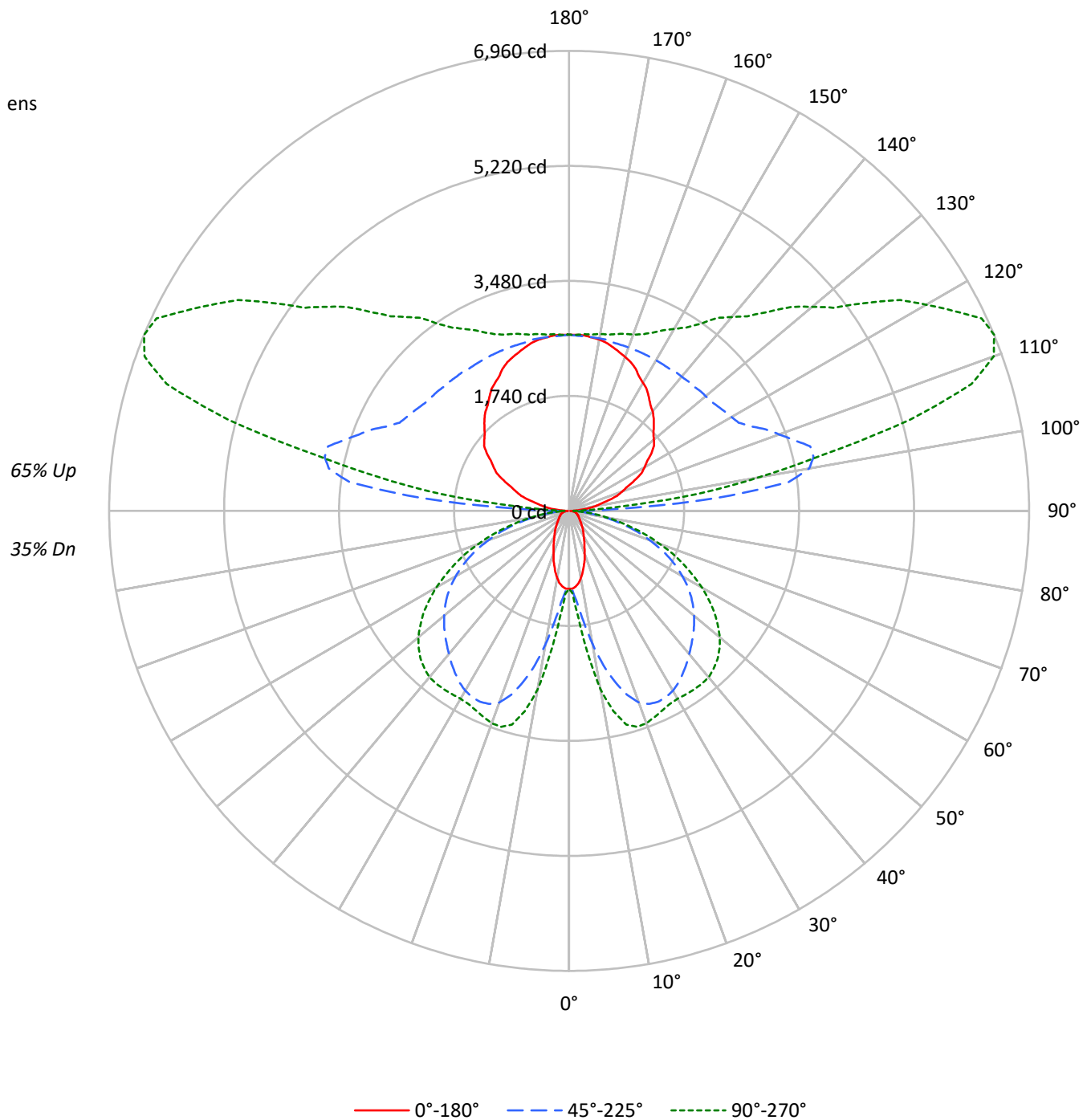
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26410.0 lumens
Efficiency: N/A
Efficacy: 121.6 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-Indirect

Input Watts (W): 217.2
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				
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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3646	3646	3646
5°	3563	4215	4900
10°	3233	6145	8124
15°	2749	8031	9810
20°	2238	9309	9998
25°	1868	9743	9795
30°	1576	9808	9776
35°	1394	9647	10029
40°	1216	9438	10290
45°	1102	9286	10330
50°	1012	9150	10159
55°	970	8949	9709
60°	993	8560	8998
65°	1035	7966	8021
70°	1106	6952	6776
75°	1230	5674	5288
80°	1354	3940	3563
85°	1228	2094	1824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	0.6
10°-20°	675.7	2.6
20°-30°	1182.0	4.5
30°-40°	1521.5	5.8
40°-50°	1699.5	6.4
50°-60°	1627.7	6.2
60°-70°	1290.0	4.9
70°-80°	758.6	2.9
80°-90°	220.9	0.8
90°-100°	1299.5	4.9
100°-110°	3416.4	12.9
110°-120°	3542.4	13.4
120°-130°	2841.4	10.8
130°-140°	2229.5	8.4
140°-150°	1711.2	6.5
150°-160°	1232.4	4.7
160°-170°	754.0	2.9
170°-180°	254.8	1.0
0°-30°	2010.2	7.6
0°-40°	3531.7	13.4
0°-60°	6859.0	26.0
0°-90°	9128.4	34.6
90°-120°	8258.2	31.3
90°-150°	15040.4	56.9
90°-180°	17282.0	65.4
0°-180°	26410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1148	1232	1387	1569	1626	106
15°	860	1588	2676	3244	3347	239
25°	550	1800	3187	3328	3331	253
35°	371	1721	3002	3172	3297	232
45°	254	1372	2653	3040	3176	196
55°	182	872	2251	2615	2687	166
65°	144	462	1671	1880	1906	143
75°	106	284	917	1008	1012	111
85°	38	87	227	250	254	40
90°	18	50	136	68	68	17
95°	172	673	2238	1154	785	191
105°	616	932	3777	5734	5350	652
115°	1093	1328	3026	6035	6888	1080
125°	1521	1705	2752	4650	5486	1350
135°	1812	1995	2666	3754	4256	1402
145°	2102	2236	2632	3203	3453	1317
155°	2376	2442	2632	2890	2974	1092
165°	2564	2598	2632	2736	2770	724
175°	2666	2666	2650	2684	2684	253
180°	2666	2666	2666	2666	2666	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7
2.5°	1178.7	1178.7	1186.3	1190.1	1197.6	1201.5	1209.0	1216.6	1239.3	1243.1	1250.7
5°	1148.4	1163.5	1212.8	1231.8	1284.8	1356.8	1387.1	1436.4	1538.7	1569.0	1587.9
7.5°	1102.9	1137.0	1258.3	1288.6	1421.2	1610.7	1690.4	1796.4	1959.4	2039.0	2103.4
10°	1030.9	1102.9	1318.9	1390.9	1607.0	1895.0	2042.8	2190.6	2437.0	2546.8	2588.5
12.5°	951.3	1068.7	1383.3	1481.9	1792.7	2213.3	2391.4	2554.5	2834.9	2982.7	3005.4
15°	860.3	1019.5	1443.9	1587.9	1989.7	2478.6	2675.7	2876.6	3138.1	3244.2	3270.8
17.5°	780.7	981.6	1500.8	1652.4	2141.3	2717.4	2918.3	3085.1	3297.2	3369.2	3388.3
20°	682.1	921.0	1538.7	1735.8	2300.5	2891.7	3085.1	3213.9	3357.9	3403.4	3410.9
22.5°	610.1	856.6	1561.5	1766.1	2406.6	2997.9	3160.8	3263.2	3361.7	3376.9	3380.6
25°	549.5	784.6	1557.6	1800.2	2497.6	3062.3	3187.4	3263.2	3320.0	3327.6	3327.6
27.5°	492.7	704.9	1542.5	1807.8	2565.8	3077.4	3176.0	3229.1	3255.6	3270.8	3270.8
30°	443.4	629.2	1504.6	1792.7	2596.2	3062.3	3141.9	3168.4	3194.9	3217.7	3229.1
32.5°	405.5	557.1	1447.8	1762.4	2599.9	3024.4	3081.2	3096.4	3134.3	3187.4	3206.3
35°	371.4	485.1	1383.3	1720.7	2577.1	2963.7	3001.7	3016.8	3092.6	3172.2	3198.8
37.5°	337.3	432.1	1299.9	1648.7	2543.1	2891.7	2918.3	2944.8	3062.3	3157.1	3187.4
40°	303.2	386.6	1201.5	1569.0	2490.0	2804.6	2827.3	2869.0	3024.4	3134.3	3164.6
42.5°	276.6	348.7	1095.3	1485.6	2421.8	2706.0	2740.2	2800.8	2978.9	3096.4	3130.5
45°	254.0	310.8	981.6	1371.9	2334.6	2603.7	2653.0	2736.3	2925.9	3039.5	3069.9
47.5°	231.2	284.3	864.1	1254.5	2239.9	2501.4	2565.8	2660.5	2853.9	2963.7	2990.3
50°	212.3	257.7	746.6	1129.5	2137.6	2391.4	2467.3	2565.8	2762.9	2865.2	2899.4
52.5°	197.1	234.9	636.7	1004.4	2020.1	2277.7	2365.0	2467.3	2653.0	2751.5	2774.3
55°	182.0	216.0	542.0	871.7	1898.8	2156.5	2251.3	2349.7	2531.7	2615.1	2630.2
57.5°	174.3	200.9	462.4	746.6	1769.9	2020.1	2126.2	2217.1	2387.7	2452.1	2467.3
60°	162.9	189.5	401.7	640.5	1629.6	1891.2	1982.2	2073.1	2217.1	2270.2	2281.6
62.5°	151.6	182.0	356.3	538.1	1485.6	1739.6	1830.5	1913.9	2035.3	2073.1	2088.2
65°	144.0	174.3	322.1	462.4	1337.9	1580.4	1671.3	1743.4	1841.9	1879.8	1887.4
67.5°	136.4	166.8	295.7	398.0	1190.1	1421.2	1489.5	1557.6	1633.5	1671.3	1675.2
70°	125.1	159.2	272.9	352.5	1038.4	1239.3	1296.2	1368.2	1428.8	1447.8	1459.2
72.5°	117.5	147.8	257.7	318.3	883.0	1065.0	1118.1	1159.8	1212.8	1231.8	1231.8
75°	106.1	132.6	242.6	284.3	723.8	871.7	917.2	958.9	1000.6	1008.1	996.7
77.5°	94.8	117.5	208.5	238.8	564.7	689.8	727.7	750.4	784.6	792.1	795.9
80°	79.6	102.3	162.9	185.7	409.3	507.8	534.4	553.3	583.7	583.7	591.2
82.5°	60.6	79.6	117.5	132.6	276.6	348.7	371.4	382.8	401.7	401.7	401.7
85°	37.9	49.2	75.8	87.2	166.8	212.3	227.4	231.2	246.3	250.1	250.1
87.5°	18.9	26.5	49.2	53.1	87.2	109.9	109.9	117.5	117.5	113.7	109.9
90°	17.9	32.2	46.6	50.1	78.7	116.8	136.0	120.9	90.6	68.0	68.0
92.5°	71.5	193.2	314.9	345.3	485.5	672.3	765.7	671.1	481.8	339.9	326.4
95°	171.7	394.3	617.0	672.7	1194.6	1890.4	2238.3	1997.3	1515.5	1154.0	1113.1
97.5°	297.0	493.4	689.8	738.9	1609.1	2769.2	3349.3	3197.0	2892.5	2664.0	2586.1
100°	393.6	571.7	749.8	794.4	1760.0	3047.3	3691.0	3702.1	3724.4	3741.1	3648.3
102.5°	475.9	642.1	808.3	849.9	1829.1	3134.8	3787.7	3981.7	4369.7	4660.8	4581.2
105°	615.5	756.3	897.0	932.2	1880.4	3144.7	3776.9	4211.8	5081.8	5734.2	5691.5
107.5°	758.6	889.8	1021.0	1053.8	1889.9	3004.7	3562.2	4168.9	5382.3	6292.4	6302.7
110°	855.2	973.7	1092.2	1121.8	1875.7	2880.7	3383.3	4061.6	5418.2	6435.6	6480.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	950.1	1063.0	1175.9	1204.1	1876.2	2772.4	3220.5	3914.7	5303.0	6344.3	6412.7
115°	1093.2	1197.3	1301.6	1327.6	1893.5	2648.2	3025.5	3694.3	5031.7	6034.8	6129.7
117.5°	1234.5	1329.1	1423.8	1447.4	1928.6	2570.3	2891.2	3494.8	4701.9	5607.2	5712.4
120°	1316.8	1405.9	1494.9	1517.2	1957.3	2544.1	2837.6	3389.0	4491.9	5319.1	5421.3
122.5°	1397.3	1487.2	1577.0	1599.5	1998.5	2530.5	2796.5	3293.0	4286.2	5031.1	5131.9
125°	1520.8	1602.7	1684.6	1705.1	2054.0	2519.2	2751.7	3173.6	4017.3	4650.0	4742.8
127.5°	1620.9	1703.6	1786.4	1807.0	2109.4	2512.6	2714.2	3076.4	3800.8	4344.1	4422.4
130°	1674.7	1763.7	1852.7	1875.0	2149.9	2516.5	2699.8	3022.2	3667.2	4150.8	4223.2
132.5°	1730.1	1819.2	1908.2	1930.5	2182.7	2519.1	2687.3	2976.0	3553.3	3986.3	4051.1
135°	1812.4	1893.5	1974.6	1994.9	2218.6	2516.8	2665.9	2907.6	3391.0	3753.6	3809.5
137.5°	1896.5	1976.8	2057.2	2077.2	2272.2	2532.2	2662.2	2866.6	3275.3	3581.9	3627.6
140°	1966.3	2040.2	2114.2	2132.7	2305.0	2534.8	2649.7	2826.2	3179.3	3444.1	3486.9
142.5°	2020.0	2088.3	2156.7	2173.8	2332.4	2544.0	2649.7	2804.8	3114.9	3347.5	3384.3
145°	2102.3	2162.0	2221.5	2236.4	2368.2	2544.0	2631.8	2758.6	3012.3	3202.6	3230.4
147.5°	2184.5	2242.6	2300.6	2315.1	2420.7	2561.4	2631.8	2731.7	2931.2	3080.9	3104.0
150°	2238.3	2290.8	2343.2	2356.3	2448.1	2570.6	2631.8	2716.2	2884.7	3011.1	3029.8
152.5°	2293.7	2333.5	2373.2	2383.1	2466.0	2576.6	2631.8	2703.8	2847.7	2955.7	2969.8
155°	2376.0	2405.5	2434.8	2442.2	2505.4	2589.7	2631.8	2689.1	2803.7	2889.5	2898.9
157.5°	2436.9	2465.4	2494.0	2501.2	2544.7	2602.8	2631.8	2676.4	2765.4	2832.2	2838.8
160°	2478.0	2500.3	2522.5	2528.1	2562.7	2608.8	2631.8	2670.0	2746.3	2803.6	2807.4
162.5°	2519.1	2535.8	2552.5	2556.7	2581.7	2615.1	2631.8	2664.0	2728.5	2776.8	2780.3
165°	2563.8	2578.9	2594.1	2597.9	2609.2	2624.3	2631.8	2654.9	2701.0	2735.6	2739.4
167.5°	2605.1	2612.2	2619.3	2621.1	2630.7	2643.4	2649.7	2664.8	2695.0	2717.7	2719.3
170°	2631.8	2639.0	2646.2	2648.0	2648.6	2649.3	2649.7	2664.8	2695.0	2717.7	2717.7
172.5°	2646.2	2647.7	2649.3	2649.7	2649.7	2649.7	2649.7	2661.7	2685.6	2703.4	2702.0
175°	2665.9	2665.9	2665.9	2665.9	2660.5	2653.3	2649.7	2657.3	2672.4	2683.7	2683.7
177.5°	2665.9	2665.9	2665.9	2665.9	2661.7	2656.1	2653.3	2659.3	2671.2	2680.1	2678.5
180°	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1178.7	1178.7
2.5°	1258.3	1250.7
5°	1618.4	1625.9
7.5°	2179.3	2175.4
10°	2709.9	2743.9
12.5°	3096.4	3104.0
15°	3331.4	3346.6
17.5°	3422.3	3426.1
20°	3426.1	3418.6
22.5°	3384.4	3376.9
25°	3335.2	3331.4
27.5°	3289.7	3293.5
30°	3270.8	3282.1
32.5°	3270.8	3289.7
35°	3278.3	3297.2
37.5°	3274.5	3297.2
40°	3259.4	3285.9
42.5°	3217.7	3236.6
45°	3153.2	3176.0
47.5°	3069.9	3085.1
50°	2963.7	2978.9
52.5°	2831.1	2834.9
55°	2671.9	2687.1
57.5°	2501.4	2505.1
60°	2311.9	2323.3
62.5°	2111.0	2111.0
65°	1898.8	1906.4
67.5°	1679.0	1697.9
70°	1455.3	1459.2
72.5°	1235.5	1235.5
75°	1008.1	1011.9
77.5°	792.1	792.1
80°	587.5	591.2
82.5°	405.5	413.1
85°	254.0	254.0
87.5°	117.5	106.1
90°	68.0	68.0
92.5°	272.3	218.3
95°	949.2	785.4
97.5°	2274.4	1962.7
100°	3277.0	2905.6
102.5°	4263.2	3945.1
105°	5520.6	5349.6
107.5°	6344.1	6385.5
110°	6658.3	6836.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6686.3	6959.8
115°	6508.9	6888.2
117.5°	6133.0	6553.7
120°	5830.0	6238.8
122.5°	5535.1	5938.2
125°	5114.2	5485.6
127.5°	4735.7	5049.0
130°	4512.7	4802.1
132.5°	4310.2	4569.5
135°	4032.9	4256.4
137.5°	3810.5	3993.3
140°	3657.8	3828.8
142.5°	3531.4	3678.5
145°	3341.8	3453.1
147.5°	3196.3	3288.4
150°	3104.6	3179.3
152.5°	3026.3	3082.7
155°	2936.2	2973.6
157.5°	2865.0	2891.2
160°	2822.5	2837.6
162.5°	2794.7	2809.0
165°	2754.5	2769.6
167.5°	2725.6	2732.0
170°	2717.7	2717.7
172.5°	2696.5	2690.9
175°	2683.7	2683.7
177.5°	2672.2	2665.9
180°	2665.9	2665.9



TEST NUMBER: P938430
 CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-6500K

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	3.90	4.66	4.97	5.74	7.21	17.09	17.85	18.16	18.93	20.40
	3H	4.59	5.28	5.68	6.37	7.86	18.93	19.61	20.01	20.70	22.19
	4H	4.89	5.54	5.98	6.63	8.12	19.57	20.22	20.66	21.31	22.80
	6H	5.13	5.73	6.23	6.82	8.33	20.00	20.60	21.10	21.69	23.20
	8H	5.20	5.77	6.30	6.87	8.38	20.12	20.69	21.23	21.80	23.30
	12H	5.21	5.75	6.32	6.85	8.38	20.19	20.73	21.30	21.83	23.36
4H	2H	11.11	11.76	12.21	12.84	14.34	17.35	18.00	18.45	19.09	20.58
	3H	12.66	13.21	13.77	14.32	15.83	19.39	19.93	20.50	21.05	22.56
	4H	12.75	13.25	13.87	14.36	15.89	20.16	20.66	21.27	21.76	23.29
	6H	12.76	13.19	13.88	14.32	15.84	20.69	21.12	21.81	22.25	23.77
	8H	12.73	13.13	13.85	14.25	15.79	20.86	21.26	21.98	22.38	23.92
	12H	12.68	13.05	13.82	14.18	15.73	20.95	21.31	22.09	22.44	23.99
8H	4H	14.19	14.60	15.31	15.72	17.25	20.21	20.61	21.33	21.73	23.27
	6H	14.43	14.76	15.57	15.93	17.46	20.84	21.17	21.98	22.33	23.87
	8H	14.45	14.74	15.60	15.88	17.44	21.06	21.35	22.21	22.49	24.05
	12H	14.41	14.67	15.56	15.81	17.40	21.20	21.46	22.35	22.60	24.19
12H	4H	14.33	14.70	15.47	15.83	17.37	20.16	20.52	21.29	21.65	23.20
	6H	14.69	14.98	15.84	16.12	17.68	20.82	21.11	21.97	22.25	23.81
	8H	14.76	15.01	15.91	16.15	17.74	21.05	21.30	22.20	22.44	24.03