

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: P855167

Luminaire Tested: SQ2-PH1-050U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

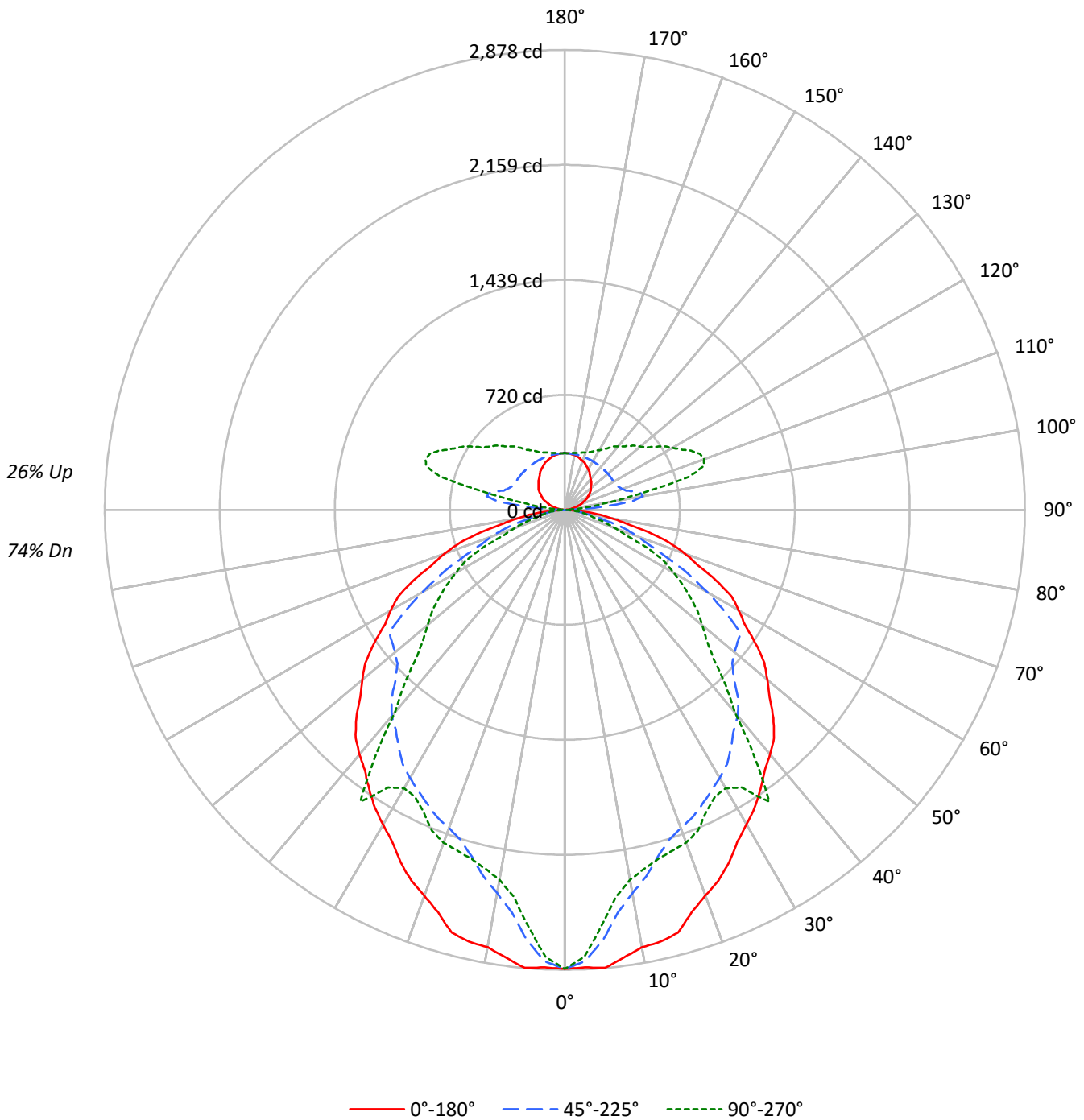
Test Method: LM-79-2019  
Report Number: P855167  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-050U-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8560.7 lumens  
Efficiency: N/A  
Efficacy: 133.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 64  
Input Voltage (V): 120  
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	0
RCR																		
0	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67	63
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57	53
3	86	77	69	63	82	73	66	61	67	61	57	61	56	52	55	51	48	45
4	79	68	60	54	75	65	58	52	59	53	48	54	49	45	49	45	42	39
5	73	61	52	46	69	58	51	45	53	47	42	49	43	39	44	40	37	34
6	67	55	46	40	64	52	45	39	48	42	37	44	39	35	40	36	32	30
7	62	50	41	36	59	48	40	35	44	37	33	40	35	31	37	32	29	26
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	34	29	26	24
9	54	41	34	28	51	40	33	28	37	31	26	34	29	25	31	27	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	25	21	19

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

	0°	45°	90°
0°	46377	46377	46377
5°	46644	43853	42391
10°	45570	39923	38535
15°	45775	37553	37782
20°	44142	36393	38084
25°	43333	36225	37198
30°	42394	36126	37502
35°	42072	35715	43958
40°	42107	35485	34851
45°	42124	34134	30015
50°	41533	34804	28148
55°	41005	37774	27004
60°	40597	33093	25330
65°	39889	26835	22032
70°	37671	22839	15739
75°	33587	17218	11940
80°	27438	11186	11186
85°	17210	10133	7595

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 42124 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.7	3.0
10°-20°	664.8	7.8
20°-30°	974.8	11.4
30°-40°	1180.5	13.8
40°-50°	1160.9	13.6
50°-60°	1010.6	11.8
60°-70°	702.6	8.2
70°-80°	333.1	3.9
80°-90°	73.9	0.9
90°-100°	141.5	1.7
100°-110°	448.9	5.2
110°-120°	440.2	5.1
120°-130°	358.2	4.2
130°-140°	292.1	3.4
140°-150°	227.7	2.7
150°-160°	164.1	1.9
160°-170°	100.2	1.2
170°-180°	33.8	0.4
0°-30°	1892.4	22.1
0°-40°	3072.9	35.9
0°-60°	5244.4	61.3
0°-90°	6354.0	74.2
90°-120°	1030.6	12.0
90°-150°	1908.6	22.3
90°-180°	2207.0	25.8
0°-180°	8560.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2872	2872	2872	2872	2872	
5°	2878	2875	2706	2621	2616	271
15°	2738	2439	2247	2231	2260	763
25°	2432	2069	2033	2096	2088	1119
35°	2134	1726	1812	1968	2230	1337
45°	1845	1366	1495	1547	1314	1418
55°	1457	1064	1342	967	959	1301
65°	1044	731	702	577	577	1026
75°	538	373	276	197	191	571
85°	93	61	55	44	41	124
90°	0	1	3	3	3	4
95°	19	57	257	95	61	22
105°	78	110	442	843	808	82
115°	140	166	358	743	874	138
125°	193	216	352	582	686	172
135°	234	256	350	501	564	180
145°	273	293	350	432	470	171
155°	311	322	351	386	401	143
165°	339	342	352	366	369	96
175°	354	353	354	356	355	34
180°	355	355	355	355	355	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2872.4	2872.4	2872.4	2872.4	2872.4
2.5°	2865.8	2895.8	2828.7	2802.3	2798.0
5°	2877.9	2875.2	2705.7	2620.8	2615.5
7.5°	2825.4	2742.6	2540.1	2446.5	2442.2
10°	2779.5	2653.9	2435.1	2350.4	2350.4
12.5°	2768.6	2570.2	2349.9	2287.3	2300.1
15°	2738.5	2439.2	2246.6	2230.8	2260.3
17.5°	2639.0	2316.7	2166.2	2202.0	2236.2
20°	2569.1	2251.0	2118.1	2184.5	2216.5
22.5°	2510.0	2187.7	2083.2	2155.7	2172.8
25°	2432.4	2069.0	2033.4	2096.1	2088.0
27.5°	2339.5	1960.0	1983.6	2022.1	2026.8
30°	2273.9	1894.4	1937.7	1976.8	2011.5
32.5°	2210.5	1818.1	1887.4	1980.0	2059.6
35°	2134.5	1725.7	1812.0	1968.3	2230.2
37.5°	2054.6	1616.5	1736.0	1867.5	1950.9
40°	1997.8	1538.2	1683.6	1845.9	1653.5
42.5°	1936.6	1476.9	1604.8	1814.4	1489.5
45°	1844.8	1366.5	1494.9	1547.1	1314.5
47.5°	1736.5	1280.7	1420.6	1290.1	1199.2
50°	1653.5	1223.2	1385.6	1179.3	1120.6
52.5°	1572.6	1163.7	1361.6	1088.0	1048.4
55°	1456.7	1063.9	1341.9	967.3	959.3
57.5°	1333.7	962.3	1186.7	862.3	876.2
60°	1257.2	896.4	1024.8	800.4	784.4
62.5°	1176.3	832.7	874.0	721.7	705.7
65°	1044.1	731.4	702.4	576.7	576.7
67.5°	898.7	626.0	569.0	471.9	407.7
70°	798.0	557.6	483.8	376.2	333.4
72.5°	690.9	484.6	396.3	308.3	259.0
75°	538.4	372.8	276.0	196.7	191.4
77.5°	389.2	268.4	185.8	146.0	146.4
80°	295.1	204.3	120.3	117.6	120.3
82.5°	207.7	140.3	89.6	93.5	94.0
85°	92.9	60.9	54.7	43.7	41.0
87.5°	19.7	17.8	11.7	11.7	11.7
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.8	79.3	26.4	18.6
95°	19.0	57.3	257.0	95.3	61.4
97.5°	35.3	74.2	435.4	272.1	166.9
100°	47.0	84.1	496.1	452.3	293.9
102.5°	59.4	94.8	485.4	664.3	508.5
105°	78.2	109.9	442.5	842.9	807.9
107.5°	97.0	126.3	401.6	861.5	908.7
110°	109.5	137.9	381.0	840.0	927.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	122.0	148.7	369.4	803.0	914.0
115°	139.6	165.9	357.6	742.7	873.9
117.5°	156.8	181.7	352.9	684.7	816.8
120°	167.6	191.7	351.9	648.8	776.7
122.5°	178.4	201.5	351.9	619.9	739.1
125°	193.3	216.3	351.9	582.4	686.1
127.5°	206.5	228.6	351.9	553.2	641.7
130°	214.6	237.5	351.9	536.0	615.7
132.5°	222.6	245.6	351.2	522.4	594.2
135°	233.6	256.4	349.8	501.0	564.4
137.5°	244.3	268.3	349.6	480.4	537.1
140°	251.5	275.4	348.7	466.0	517.4
142.5°	260.4	283.5	349.6	451.6	499.5
145°	272.6	293.4	349.8	432.2	470.4
147.5°	285.0	302.6	350.0	415.1	446.3
150°	293.9	308.0	350.9	405.1	430.3
152.5°	301.0	313.5	350.9	397.0	417.7
155°	310.6	321.6	350.9	385.9	401.2
157.5°	320.9	328.4	351.9	379.1	389.5
160°	326.3	332.8	351.9	374.6	383.3
162.5°	331.7	336.4	351.9	371.0	377.1
165°	338.6	341.9	351.9	365.5	368.8
167.5°	345.0	345.9	353.1	361.7	364.5
170°	348.7	348.7	353.1	359.9	360.9
172.5°	350.5	351.3	353.1	358.1	358.3
175°	354.2	353.2	354.2	356.5	355.3
177.5°	355.3	354.4	354.4	356.2	354.4
180°	355.3	355.3	355.3	355.3	355.3

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**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	22.65	23.77	23.37	24.51	25.39	21.33	22.44	22.04	23.18	24.06
	3H	24.70	25.70	25.43	26.45	27.36	22.38	23.38	23.11	24.13	25.04
	4H	25.44	26.39	26.19	27.14	28.07	22.61	23.55	23.36	24.31	25.23
	6H	25.94	26.81	26.70	27.58	28.51	22.76	23.63	23.53	24.40	25.34
	8H	26.07	26.90	26.85	27.69	28.63	22.80	23.63	23.58	24.42	25.36
	12H	26.12	26.92	26.90	27.70	28.66	22.81	23.60	23.59	24.38	25.34
4H	2H	23.06	24.00	23.81	24.76	25.68	22.00	22.94	22.75	23.70	24.62
	3H	25.19	25.98	25.96	26.77	27.71	23.20	23.99	23.97	24.78	25.72
	4H	26.02	26.73	26.80	27.52	28.49	23.49	24.20	24.27	25.00	25.96
	6H	26.62	27.23	27.42	28.05	29.02	23.71	24.33	24.51	25.15	26.12
	8H	26.79	27.37	27.59	28.18	29.17	23.77	24.35	24.58	25.16	26.15
	12H	26.87	27.39	27.69	28.22	29.22	23.79	24.31	24.62	25.15	26.14
8H	4H	26.05	26.63	26.86	27.44	28.43	23.72	24.30	24.53	25.11	26.10
	6H	26.72	27.19	27.55	28.05	29.04	24.01	24.48	24.84	25.34	26.33
	8H	26.94	27.37	27.79	28.22	29.22	24.11	24.53	24.96	25.39	26.39
	12H	27.07	27.44	27.92	28.28	29.35	24.17	24.54	25.01	25.38	26.45
12H	4H	26.02	26.53	26.84	27.37	28.36	23.73	24.25	24.56	25.09	26.08
	6H	26.69	27.11	27.54	27.97	28.97	24.04	24.46	24.88	25.32	26.32
	8H	26.94	27.31	27.78	28.15	29.21	24.17	24.54	25.01	25.38	26.44