

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: P855171

Luminaire Tested: SQ2-PH1-025U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855171  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-025U-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

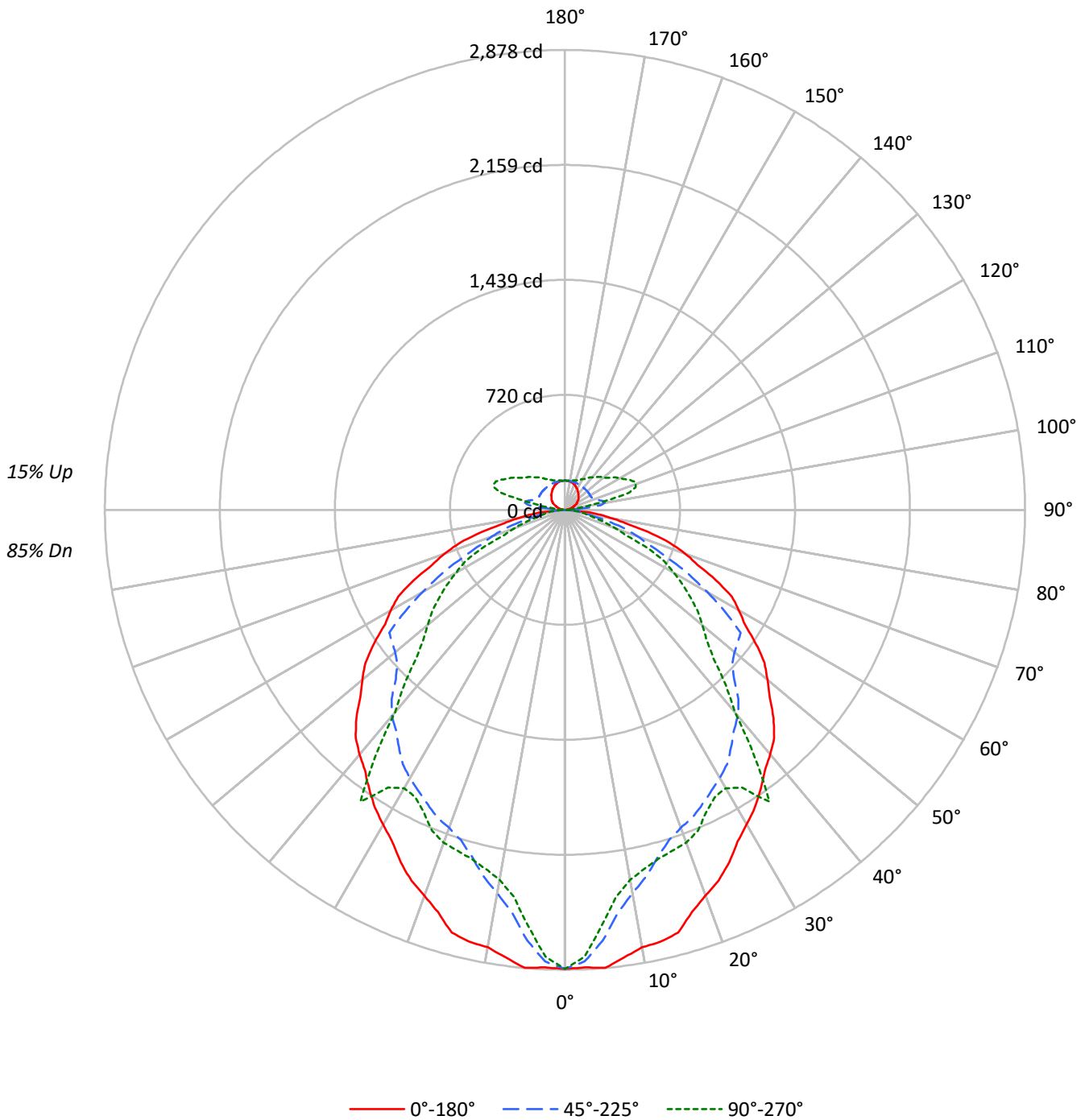
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7490.9 lumens  
Efficiency: N/A  
Efficacy: 132.3 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): 56.6  
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	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	106	102	98	94	102	98	94	91	91	88	86	84	82	80	79	77	75	72
2	97	89	83	77	93	86	80	75	80	75	71	75	71	67	69	66	64	61
3	88	79	71	65	85	76	69	63	71	65	60	66	61	57	62	58	55	52
4	81	70	61	55	78	67	60	54	63	57	52	59	54	49	55	51	47	45
5	75	62	54	48	72	60	53	47	57	50	45	53	47	43	50	45	41	39
6	69	56	48	42	66	55	47	41	51	44	39	48	42	38	45	40	36	34
7	64	51	43	37	61	50	42	36	47	40	35	44	38	34	41	36	32	30
8	60	47	38	33	57	45	38	32	43	36	31	40	34	30	38	33	29	27
9	56	43	35	30	53	42	34	29	39	33	28	37	31	27	35	30	26	24
10	52	39	32	27	50	38	31	26	36	30	26	34	29	25	33	28	24	22

**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	3.4
10°-20°	664.8	8.9
20°-30°	974.8	13.0
30°-40°	1180.5	15.8
40°-50°	1160.9	15.5
50°-60°	1010.6	13.5
60°-70°	702.6	9.4
70°-80°	333.1	4.4
80°-90°	73.9	1.0
90°-100°	74.1	1.0
100°-110°	230.6	3.1
110°-120°	225.6	3.0
120°-130°	184.2	2.5
130°-140°	150.7	2.0
140°-150°	117.6	1.6
150°-160°	84.9	1.1
160°-170°	51.9	0.7
170°-180°	17.5	0.2
0°-30°	1892.4	25.3
0°-40°	3072.9	41.0
0°-60°	5244.4	70.0
0°-90°	6354.0	84.8
90°-120°	530.3	7.1
90°-150°	982.7	13.1
90°-180°	1137.0	15.2
0°-180°	7490.9	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	3
95°	10	30	136	50	33	12
105°	40	57	227	433	414	43
115°	72	85	184	380	445	71
125°	100	111	182	299	351	89
135°	120	133	181	258	290	93
145°	140	151	181	223	243	88
155°	161	166	182	200	207	74
165°	176	178	183	189	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



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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°	3.6	12.6	42.9	14.1	11.4
95°	10.1	29.9	136.0	50.1	32.6
97.5°	18.4	38.8	225.2	140.2	88.4
100°	24.7	43.5	253.9	237.5	158.4
102.5°	31.0	48.8	248.6	339.3	266.4
105°	40.5	56.9	227.0	433.3	413.6
107.5°	49.9	65.3	206.3	440.6	462.4
110°	56.2	71.5	195.6	430.3	473.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.5	77.0	190.1	411.7	465.9
115°	72.0	85.1	184.3	380.2	445.1
117.5°	81.1	93.2	181.9	350.1	416.5
120°	86.6	98.7	181.0	332.9	396.8
122.5°	91.9	104.0	181.9	318.5	377.0
125°	100.0	111.0	182.1	299.0	350.6
127.5°	106.5	117.8	182.1	284.4	328.4
130°	110.1	122.2	182.1	276.2	315.8
132.5°	114.6	126.7	181.2	269.0	305.9
135°	120.3	133.4	181.0	258.1	289.9
137.5°	126.7	138.9	181.0	247.3	276.2
140°	130.4	142.5	181.0	240.0	266.4
142.5°	134.9	146.1	181.0	232.8	256.4
145°	140.4	151.4	181.0	222.9	242.7
147.5°	147.2	156.6	182.1	213.9	229.5
150°	151.8	159.5	182.1	209.4	221.4
152.5°	155.3	162.2	182.1	204.8	215.1
155°	160.7	166.2	182.1	200.2	206.8
157.5°	166.1	170.3	182.1	196.1	200.3
160°	169.7	173.0	182.1	193.4	196.7
162.5°	172.4	174.8	182.1	191.6	194.0
165°	176.4	177.6	183.2	188.9	191.0
167.5°	178.9	179.1	182.1	187.3	188.3
170°	179.8	181.0	182.1	185.5	186.6
172.5°	181.6	181.9	183.0	184.6	184.8
175°	183.2	183.2	183.2	184.2	183.2
177.5°	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2

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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	23.43	24.71	24.02	25.30	25.97	22.10	23.38	22.69	23.97	24.64
	3H	25.48	26.63	26.09	27.24	27.94	23.17	24.31	23.77	24.92	25.62
	4H	26.23	27.31	26.86	27.93	28.65	23.40	24.48	24.02	25.10	25.82
	6H	26.74	27.74	27.38	28.37	29.10	23.56	24.56	24.20	25.19	25.93
	8H	26.88	27.83	27.52	28.48	29.22	23.61	24.56	24.26	25.21	25.95
	12H	26.93	27.84	27.59	28.49	29.25	23.62	24.53	24.27	25.17	25.94
4H	2H	23.85	24.93	24.48	25.55	26.27	22.79	23.87	23.42	24.49	25.21
	3H	26.00	26.90	26.64	27.56	28.29	24.01	24.91	24.65	25.57	26.31
	4H	26.83	27.64	27.49	28.31	29.08	24.30	25.12	24.96	25.78	26.55
	6H	27.44	28.14	28.11	28.83	29.61	24.53	25.24	25.21	25.93	26.71
	8H	27.62	28.28	28.30	28.96	29.76	24.60	25.26	25.28	25.95	26.74
	12H	27.70	28.29	28.41	29.01	29.81	24.63	25.22	25.33	25.93	26.73
8H	4H	26.88	27.54	27.56	28.23	29.02	24.55	25.21	25.23	25.90	26.69
	6H	27.55	28.09	28.26	28.82	29.62	24.84	25.38	25.55	26.11	26.91
	8H	27.78	28.26	28.50	29.00	29.81	24.95	25.43	25.67	26.17	26.98
	12H	27.91	28.34	28.64	29.06	29.94	25.01	25.44	25.74	26.16	27.04
12H	4H	26.85	27.44	27.55	28.16	28.95	24.57	25.16	25.27	25.87	26.67
	6H	27.53	28.01	28.25	28.75	29.56	24.87	25.36	25.60	26.09	26.91
	8H	27.78	28.20	28.50	28.93	29.80	25.01	25.44	25.74	26.16	27.03