

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: P855172

Luminaire Tested: SQ2-PH1-025U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855172  
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-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

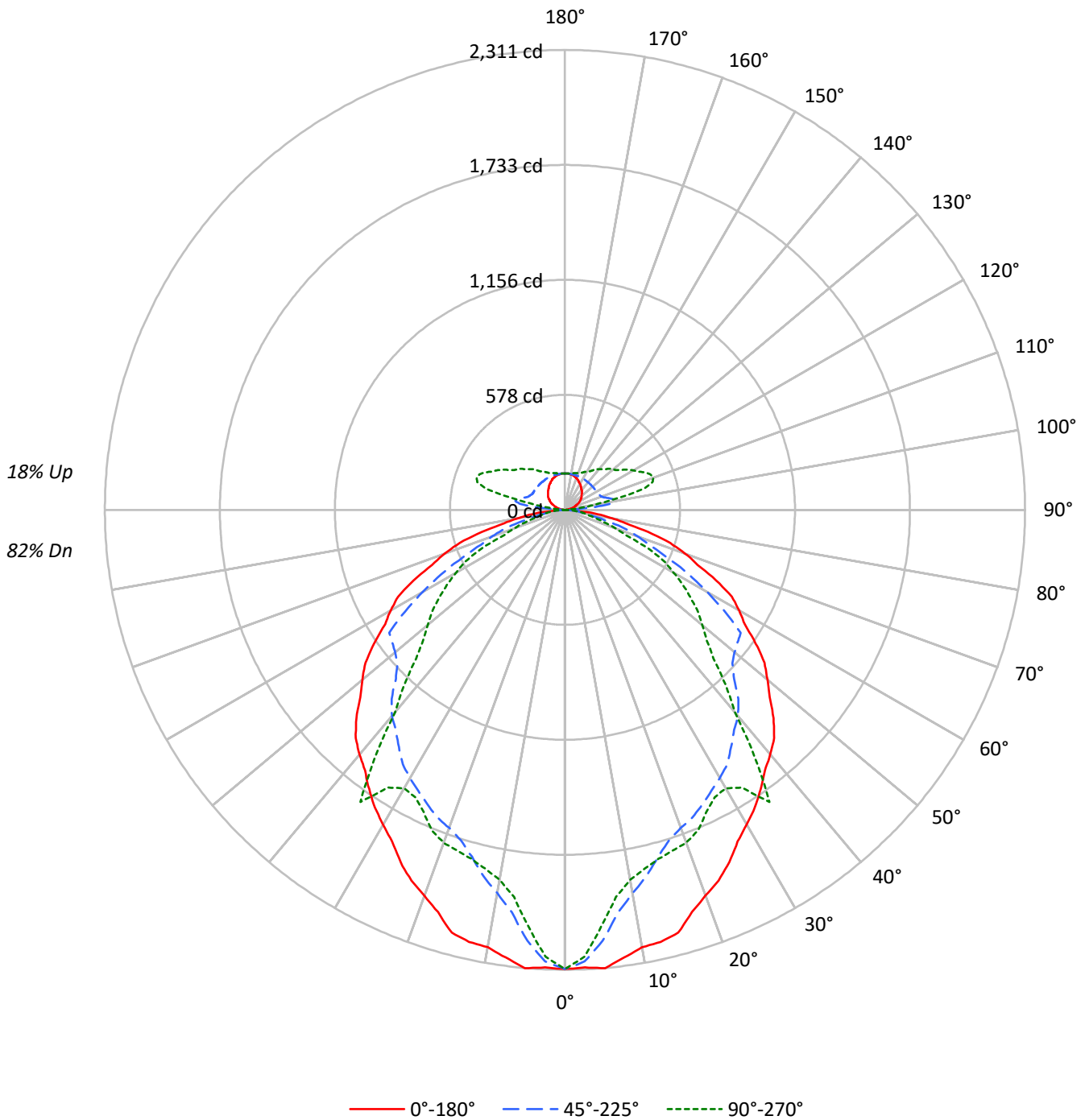
Lumens per Lamp: N/A  
Luminaire Lumens: 6238.1 lumens  
Efficiency: N/A  
Efficacy: 138.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 45  
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	50	30	10
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82		
1	105	101	97	93	101	97	93	90	89	87	84	82	80	78	76	74	73	70		
2	96	88	82	77	92	85	79	75	79	74	70	73	69	66	67	64	62	59		
3	88	78	70	64	84	75	68	63	70	64	59	64	60	56	60	56	53	50		
4	81	69	61	55	77	67	59	53	62	56	51	58	52	48	54	49	46	43		
5	74	62	53	47	71	60	52	46	56	49	44	52	46	42	48	44	40	37		
6	68	56	47	41	65	54	46	40	50	44	39	47	41	37	44	39	35	33		
7	63	51	42	36	61	49	41	36	46	39	34	43	37	33	40	35	31	29		
8	59	46	38	32	57	45	37	32	42	35	31	39	34	29	37	32	28	26		
9	55	42	35	29	53	41	34	29	39	32	28	36	31	27	34	29	25	24		
10	52	39	31	26	50	38	31	26	36	29	25	34	28	24	32	27	23	21		

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

	0°	45°	90°
0°	37247	37247	37247
5°	37460	35219	34046
10°	36597	32064	30947
15°	36762	30158	30342
20°	35450	29228	30586
25°	34802	29092	29874
30°	34047	29015	30119
35°	33788	28683	35303
40°	33818	28498	27988
45°	33830	27414	24106
50°	33355	27954	22604
55°	32932	30337	21686
60°	32605	26579	20344
65°	32030	21551	17692
70°	30260	18340	12642
75°	26974	13830	9588
80°	22046	8973	8973
85°	13820	8133	6095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 33830 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.0	3.3
10°-20°	533.9	8.6
20°-30°	782.9	12.5
30°-40°	948.1	15.2
40°-50°	932.4	14.9
50°-60°	811.6	13.0
60°-70°	564.3	9.0
70°-80°	267.5	4.3
80°-90°	59.4	1.0
90°-100°	74.0	1.2
100°-110°	230.2	3.7
110°-120°	225.2	3.6
120°-130°	183.8	2.9
130°-140°	150.4	2.4
140°-150°	117.4	1.9
150°-160°	84.7	1.4
160°-170°	51.8	0.8
170°-180°	17.5	0.3
0°-30°	1519.8	24.4
0°-40°	2467.9	39.6
0°-60°	4211.9	67.5
0°-90°	5103.1	81.8
90°-120°	529.5	8.5
90°-150°	981.1	15.7
90°-180°	1135.0	18.2
0°-180°	6238.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2307	2307	2307	2307	2307	
5°	2311	2309	2173	2105	2101	217
15°	2199	1959	1804	1792	1815	613
25°	1954	1662	1633	1683	1677	898
35°	1714	1386	1455	1581	1791	1074
45°	1482	1097	1201	1242	1056	1139
55°	1170	854	1078	777	770	1045
65°	838	587	564	463	463	824
75°	432	299	222	158	154	458
85°	75	49	44	35	33	100
90°	0	1	3	3	3	3
95°	10	30	136	50	33	12
105°	40	57	227	433	413	43
115°	72	85	184	380	444	71
125°	100	111	182	298	350	89
135°	120	133	181	258	290	93
145°	140	151	181	223	242	88
155°	160	166	182	200	206	74
165°	176	177	183	188	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°	2306.9	2306.9	2306.9	2306.9	2306.9
2.5°	2301.6	2325.7	2271.7	2250.7	2247.1
5°	2311.3	2309.2	2173.0	2104.9	2100.6
7.5°	2269.1	2202.6	2039.9	1964.8	1961.4
10°	2232.2	2131.4	1955.7	1887.6	1887.6
12.5°	2223.5	2064.3	1887.2	1836.9	1847.2
15°	2199.3	1958.9	1804.2	1791.7	1815.2
17.5°	2119.4	1860.6	1739.7	1768.5	1796.0
20°	2063.2	1807.8	1701.1	1754.3	1780.1
22.5°	2015.8	1757.0	1672.9	1731.2	1745.0
25°	1953.5	1661.6	1633.0	1683.3	1676.9
27.5°	1878.9	1574.1	1593.0	1623.9	1627.8
30°	1826.2	1521.4	1556.3	1587.6	1615.5
32.5°	1775.2	1460.2	1515.9	1590.1	1654.2
35°	1714.2	1385.8	1455.2	1580.7	1791.1
37.5°	1650.2	1298.1	1394.2	1499.8	1566.8
40°	1604.5	1235.3	1352.1	1482.5	1327.9
42.5°	1555.4	1186.2	1288.9	1457.2	1196.3
45°	1481.6	1097.4	1200.6	1242.5	1055.7
47.5°	1394.7	1028.6	1140.9	1036.2	963.2
50°	1327.9	982.4	1112.9	947.1	899.9
52.5°	1262.9	934.6	1093.5	873.8	842.0
55°	1169.9	854.4	1077.7	776.9	770.4
57.5°	1071.1	772.8	953.1	692.6	703.7
60°	1009.7	720.0	823.1	642.8	630.0
62.5°	944.7	668.7	702.0	579.6	566.7
65°	838.4	587.3	564.1	463.1	463.1
67.5°	721.7	502.8	457.0	379.0	327.5
70°	641.0	447.8	388.5	302.2	267.8
72.5°	554.9	389.2	318.2	247.6	208.1
75°	432.4	299.3	221.7	158.0	153.7
77.5°	312.6	215.6	149.3	117.2	117.7
80°	237.1	164.1	96.5	94.4	96.5
82.5°	166.8	112.7	72.0	75.0	75.5
85°	74.6	48.9	43.9	35.1	32.9
87.5°	15.8	14.3	9.5	9.5	9.5
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	42.9	14.0	11.4
95°	10.1	29.9	135.8	50.1	32.6
97.5°	18.4	38.8	224.9	140.0	88.2
100°	24.7	43.3	253.6	237.2	158.2
102.5°	31.0	48.8	248.2	338.7	265.9
105°	40.4	56.8	226.7	432.6	412.9
107.5°	49.8	65.2	206.0	439.9	461.6
110°	56.1	71.4	195.2	429.6	472.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.4	76.8	189.9	411.0	465.2
115°	71.9	85.0	184.0	379.6	444.3
117.5°	81.0	93.0	181.5	349.6	415.8
120°	86.3	98.5	180.6	332.5	396.1
122.5°	91.8	103.9	181.5	318.0	376.3
125°	99.8	110.8	181.7	298.5	350.0
127.5°	106.4	117.6	181.7	283.9	327.8
130°	110.0	122.0	181.7	275.8	315.3
132.5°	114.4	126.5	180.8	268.5	305.4
135°	120.1	133.2	180.6	257.7	289.5
137.5°	126.5	138.6	180.6	246.8	275.8
140°	130.1	142.3	180.6	239.6	265.9
142.5°	134.7	145.9	180.6	232.3	256.0
145°	140.2	151.2	180.6	222.6	242.4
147.5°	147.0	156.4	181.7	213.5	229.2
150°	151.4	159.1	181.7	209.0	221.0
152.5°	155.0	161.8	181.7	204.5	214.8
155°	160.5	165.9	181.7	199.9	206.4
157.5°	165.8	170.0	181.7	195.8	200.0
160°	169.4	172.7	181.7	193.1	196.3
162.5°	172.1	174.5	181.7	191.3	193.6
165°	176.2	177.2	182.9	188.5	190.7
167.5°	178.6	178.8	181.7	187.0	188.1
170°	179.5	180.6	181.7	185.1	186.3
172.5°	181.3	181.5	182.7	184.2	184.5
175°	182.9	182.9	182.9	184.0	182.9
177.5°	182.9	182.9	182.9	182.9	182.9
180°	182.9	182.9	182.9	182.9	182.9

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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	22.45	23.68	23.08	24.32	25.05	21.12	22.35	21.75	22.99	23.72
	3H	24.50	25.60	25.14	26.25	27.02	22.18	23.29	22.82	23.94	24.70
	4H	25.25	26.29	25.91	26.95	27.73	22.41	23.45	23.08	24.11	24.89
	6H	25.75	26.71	26.43	27.38	28.18	22.58	23.54	23.25	24.21	25.00
	8H	25.89	26.80	26.57	27.49	28.29	22.62	23.53	23.31	24.23	25.02
	12H	25.95	26.82	26.64	27.50	28.33	22.63	23.50	23.32	24.19	25.01
4H	2H	22.87	23.91	23.53	24.57	25.35	21.81	22.85	22.47	23.51	24.29
	3H	25.01	25.87	25.69	26.57	27.37	23.02	23.88	23.70	24.59	25.38
	4H	25.84	26.62	26.53	27.32	28.15	23.31	24.09	24.01	24.80	25.63
	6H	26.44	27.12	27.16	27.85	28.69	23.54	24.22	24.25	24.95	25.79
	8H	26.62	27.25	27.34	27.98	28.83	23.61	24.24	24.32	24.96	25.82
	12H	26.71	27.28	27.45	28.03	28.88	23.63	24.20	24.37	24.95	25.80
8H	4H	25.88	26.52	26.60	27.24	28.09	23.56	24.19	24.28	24.92	25.77
	6H	26.55	27.07	27.30	27.84	28.70	23.84	24.37	24.59	25.14	25.99
	8H	26.78	27.25	27.54	28.02	28.89	23.95	24.41	24.71	25.19	26.06
	12H	26.91	27.32	27.67	28.08	29.01	24.01	24.42	24.77	25.18	26.11
12H	4H	25.85	26.42	26.59	27.17	28.03	23.57	24.14	24.31	24.89	25.75
	6H	26.53	26.99	27.29	27.77	28.63	23.88	24.34	24.64	25.11	25.98
	8H	26.78	27.19	27.54	27.95	28.88	24.01	24.42	24.77	25.18	26.11