

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: P853492

Luminaire Tested: SQ2-BBM-025U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853492  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-025U-075D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

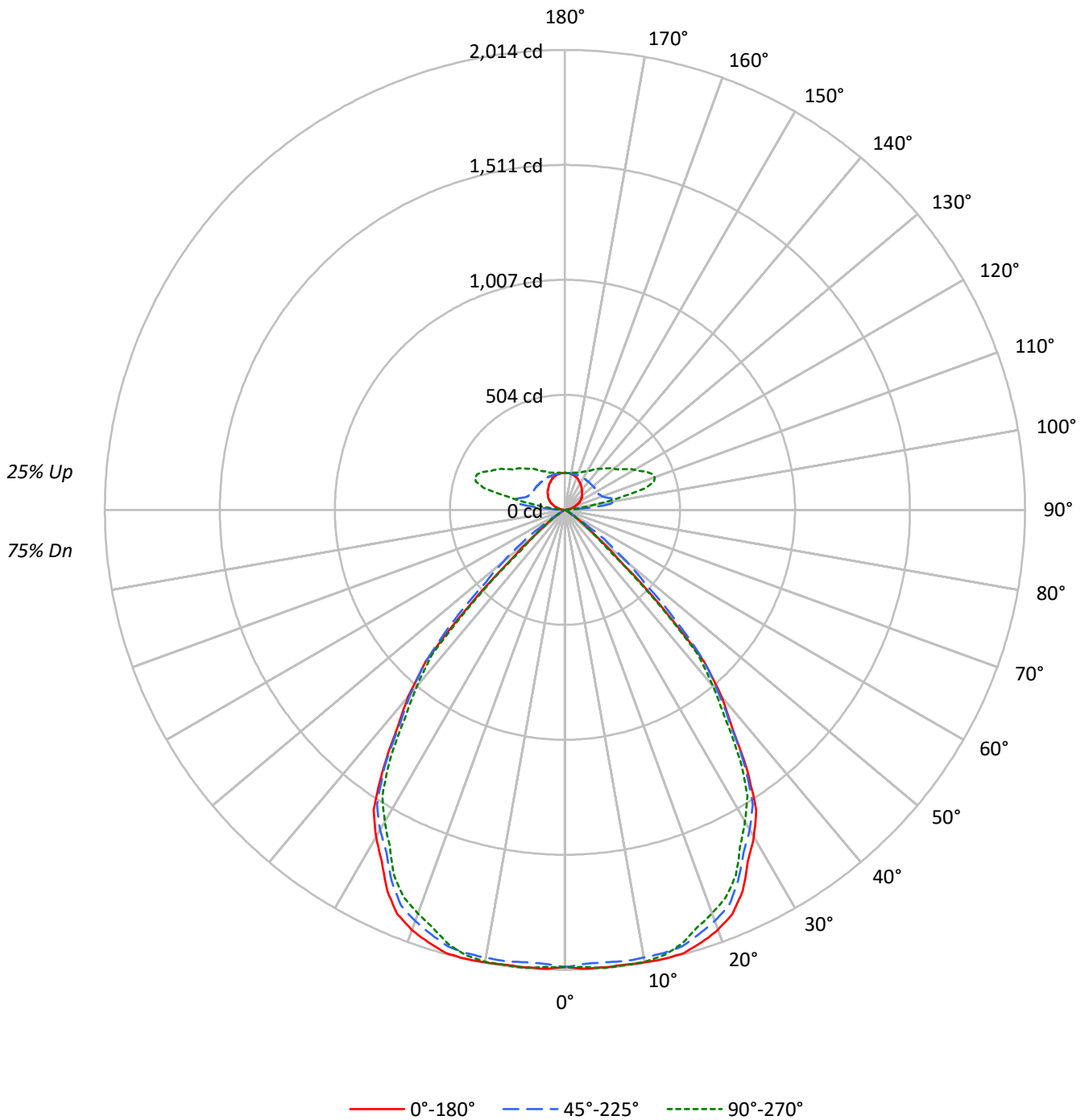
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3999.0 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 35  
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	0
RCR																					
0	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	79	79	79	75
1	106	103	100	97	101	98	96	93	90	88	86	82	80	79	74	73	72	74	73	72	69
2	99	94	89	85	95	90	86	82	82	79	76	76	73	71	69	68	66	69	68	66	63
3	93	85	79	75	89	82	77	73	76	72	68	70	67	64	64	62	60	64	62	60	57
4	87	78	71	66	83	75	69	65	70	65	61	65	61	58	60	57	55	60	57	55	52
5	81	71	64	59	77	69	63	58	64	59	55	60	56	52	56	52	50	56	52	50	47
6	76	65	59	54	73	63	57	52	59	54	50	55	51	48	52	48	46	52	48	46	43
7	71	60	53	48	68	58	52	48	55	49	46	51	47	44	48	44	42	48	44	42	40
8	67	56	49	44	64	54	48	43	51	45	42	48	43	40	45	41	38	45	41	38	36
9	63	52	45	40	60	50	44	40	47	42	38	45	40	37	42	38	35	42	38	35	34
10	59	48	41	37	57	47	41	36	44	39	35	42	37	34	39	35	33	39	35	33	31

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

	0°	45°	90°
0°	32330	32330	32330
5°	32584	32225	32632
10°	32993	32647	32944
15°	33588	33085	32918
20°	33630	32924	32323
25°	32799	31960	31515
30°	30833	30160	29394
35°	27364	27147	26337
40°	22443	22063	21239
45°	13381	15737	12556
50°	4177	8731	3951
55°	1579	3102	1579
60°	97	872	32
65°	0	38	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 15737 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.4	4.8
10°-20°	560.8	14.0
20°-30°	825.0	20.6
30°-40°	843.3	21.1
40°-50°	485.8	12.1
50°-60°	83.7	2.1
60°-70°	3.0	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	65.6	1.6
100°-110°	203.9	5.1
110°-120°	199.5	5.0
120°-130°	162.9	4.1
130°-140°	133.2	3.3
140°-150°	104.0	2.6
150°-160°	75.0	1.9
160°-170°	45.9	1.1
170°-180°	15.5	0.4
0°-30°	1577.3	39.4
0°-40°	2420.5	60.5
0°-60°	2990.1	74.8
0°-90°	2993.6	74.9
90°-120°	469.0	11.7
90°-150°	869.1	21.7
90°-180°	1006.0	25.2
0°-180°	3999.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	2010	2006	1988	2015	2013	192
15°	2009	2026	1979	1982	1969	566
25°	1841	1858	1794	1776	1769	840
35°	1388	1399	1377	1351	1336	858
45°	586	673	689	651	550	453
55°	56	64	110	62	56	59
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	26	120	44	29	10
105°	36	50	201	383	366	38
115°	64	75	163	336	394	63
125°	88	98	161	264	310	79
135°	106	118	160	228	256	82
145°	124	134	160	197	215	78
155°	142	147	161	177	183	66
165°	156	157	162	167	169	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2002.4	2002.4	2002.4	2002.4	2002.4
2.5°	2011.2	2005.7	1989.5	2007.9	2004.0
5°	2010.4	2005.5	1988.3	2015.3	2013.4
7.5°	2009.2	2005.8	1993.7	2015.9	2011.0
10°	2012.4	2011.4	1991.3	2014.3	2009.4
12.5°	2014.0	2020.1	1988.9	2007.0	1998.2
15°	2009.4	2026.0	1979.3	1982.0	1969.3
17.5°	1986.9	2010.4	1948.3	1936.8	1918.8
20°	1957.3	1984.7	1916.2	1896.8	1881.2
22.5°	1915.6	1940.7	1875.3	1851.2	1838.7
25°	1841.1	1857.7	1794.0	1775.8	1769.0
27.5°	1735.5	1740.2	1692.2	1669.6	1660.8
30°	1653.8	1653.8	1617.7	1593.3	1576.6
32.5°	1558.4	1556.1	1530.4	1503.5	1486.9
35°	1388.3	1399.1	1377.3	1350.9	1336.2
37.5°	1204.2	1208.3	1191.8	1163.5	1151.1
40°	1064.8	1065.8	1046.8	1026.3	1007.7
42.5°	902.1	921.9	904.1	871.9	864.3
45°	586.0	673.2	689.2	650.8	549.9
47.5°	294.5	403.0	471.0	365.8	259.0
50°	166.3	230.9	347.6	193.5	157.3
52.5°	111.0	139.6	241.0	126.5	106.0
55°	56.1	63.9	110.2	62.0	56.1
57.5°	19.0	29.6	47.9	30.6	21.0
60°	3.0	12.8	27.0	9.8	1.0
62.5°	0.6	3.3	16.6	2.7	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	38.0	12.5	10.1
95°	8.9	26.4	120.3	44.4	28.8
97.5°	16.3	34.4	199.2	124.0	78.1
100°	21.9	38.4	224.6	210.1	140.1
102.5°	27.4	43.2	219.9	300.1	235.6
105°	35.8	50.4	200.8	383.3	365.8
107.5°	44.1	57.7	182.5	389.7	408.9
110°	49.7	63.3	172.9	380.5	418.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.3	68.1	168.2	364.1	412.1
115°	63.6	75.3	163.0	336.3	393.6
117.5°	71.8	82.5	160.8	309.7	368.4
120°	76.5	87.2	160.0	294.5	350.9
122.5°	81.3	92.0	160.8	281.7	333.4
125°	88.5	98.2	161.0	264.4	310.1
127.5°	94.2	104.1	161.0	251.6	290.4
130°	97.4	108.1	161.0	244.3	279.3
132.5°	101.4	112.1	160.2	237.9	270.5
135°	106.4	118.0	160.0	228.3	256.4
137.5°	112.1	122.8	160.0	218.7	244.3
140°	115.3	126.0	160.0	212.2	235.6
142.5°	119.3	129.2	160.0	205.8	226.8
145°	124.2	134.0	160.0	197.2	214.7
147.5°	130.2	138.6	161.0	189.2	203.0
150°	134.2	141.0	161.0	185.1	195.8
152.5°	137.4	143.4	161.0	181.1	190.2
155°	142.1	147.0	161.0	177.1	182.9
157.5°	146.9	150.6	161.0	173.4	177.1
160°	150.1	153.0	161.0	171.0	173.9
162.5°	152.5	154.6	161.0	169.4	171.6
165°	156.0	157.0	162.0	167.0	169.0
167.5°	158.2	158.4	161.0	165.6	166.6
170°	159.0	160.0	161.0	164.0	165.0
172.5°	160.6	160.8	161.8	163.2	163.4
175°	162.0	162.0	162.0	163.0	162.0
177.5°	162.0	162.0	162.0	162.0	162.0
180°	162.0	162.0	162.0	162.0	162.0



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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	2.05	2.90	2.80	3.64	4.52	1.67	2.52	2.41	3.26	4.14
	3H	1.86	2.62	2.62	3.37	4.28	1.48	2.23	2.24	2.98	3.90
	4H	1.76	2.47	2.54	3.22	4.15	1.38	2.08	2.16	2.84	3.77
	6H	1.66	2.30	2.45	3.07	4.01	1.28	1.92	2.07	2.69	3.62
	8H	1.60	2.21	2.40	2.99	3.93	1.22	1.83	2.02	2.61	3.55
	12H	1.54	2.12	2.34	2.90	3.86	1.16	1.74	1.96	2.52	3.48
4H	2H	1.77	2.47	2.55	3.23	4.16	1.39	2.09	2.17	2.85	3.78
	3H	1.58	2.15	2.37	2.94	3.88	1.20	1.77	1.99	2.56	3.50
	4H	1.46	1.98	2.27	2.78	3.75	1.08	1.60	1.89	2.40	3.37
	6H	1.36	1.80	2.18	2.62	3.60	0.98	1.42	1.80	2.24	3.22
	8H	1.29	1.70	2.12	2.52	3.50	0.91	1.32	1.74	2.14	3.12
	12H	1.22	1.59	2.07	2.43	3.42	0.84	1.21	1.69	2.05	3.04
8H	4H	1.29	1.70	2.12	2.52	3.50	0.91	1.32	1.74	2.14	3.12
	6H	1.17	1.51	2.02	2.37	3.35	0.79	1.13	1.64	1.99	2.97
	8H	1.11	1.40	1.97	2.26	3.27	0.73	1.02	1.59	1.88	2.89
	12H	1.04	1.30	1.90	2.15	3.21	0.66	0.92	1.52	1.77	2.83
12H	4H	1.22	1.59	2.07	2.43	3.42	0.84	1.21	1.69	2.05	3.04
	6H	1.11	1.40	1.97	2.26	3.27	0.73	1.02	1.59	1.88	2.89
	8H	1.04	1.30	1.90	2.15	3.21	0.66	0.92	1.52	1.77	2.83