

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: P853528

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

Issue Date: 7/12/2024

**Test Information**

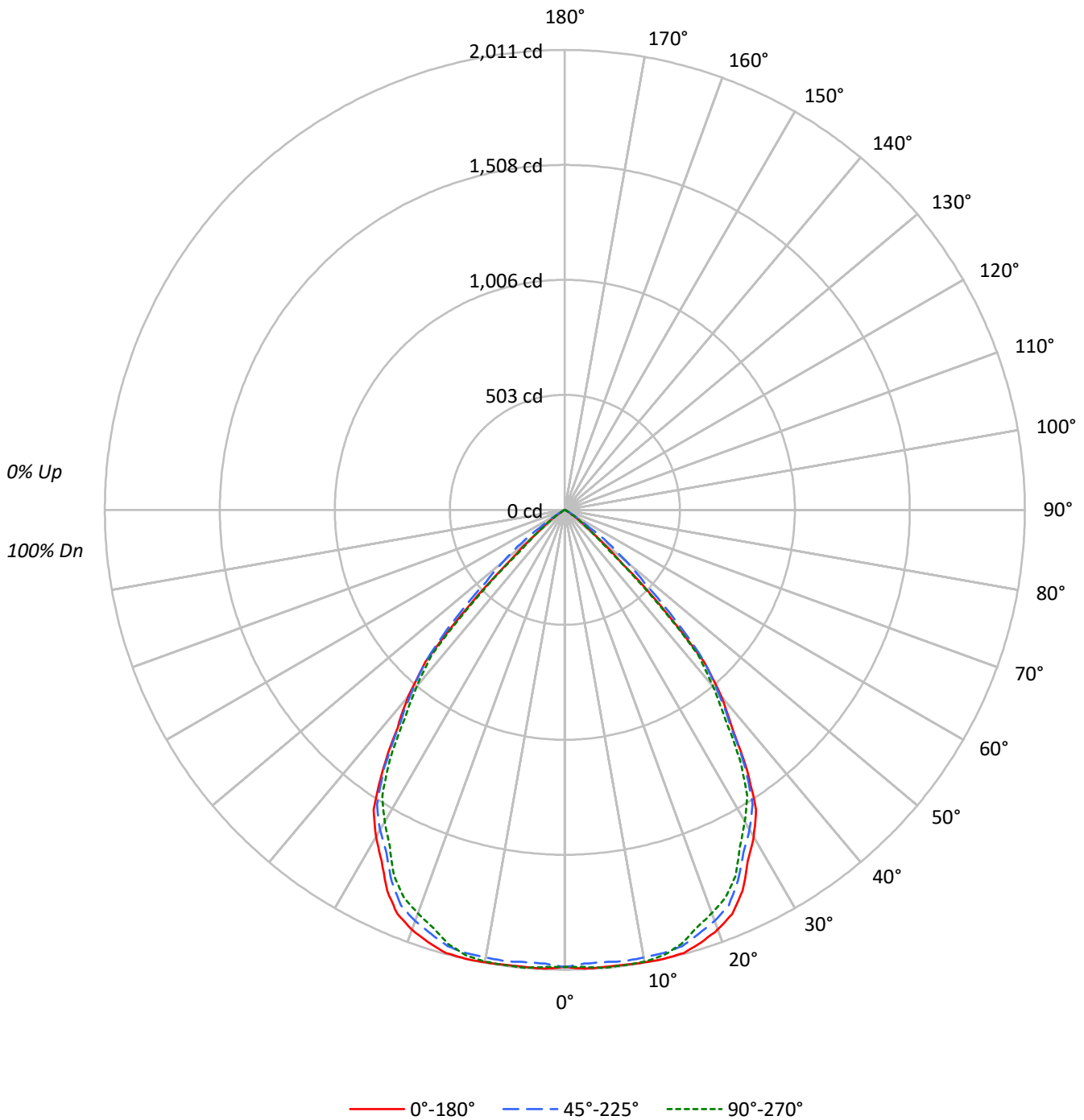
Test Method: LM-79-2019  
Report Number: P853528  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-075D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2988.1 lumens  
Efficiency: N/A  
Efficacy: 108.3 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: Direct  
  
Input Watts (W): 27.6  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92				
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84				
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63				
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58				
7	78	67	61	56	76	67	60	56	65	60	55	64	59	55	63	58	55	53				
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	47	43	42				

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

	0°	45°	90°
0°	32276	32276	32276
5°	32528	32172	32577
10°	32937	32593	32888
15°	33531	33030	32862
20°	33574	32869	32268
25°	32744	31907	31461
30°	30781	30109	29345
35°	27319	27102	26294
40°	22405	22025	21203
45°	13358	15710	12536
50°	4170	8716	3944
55°	1576	3096	1576
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: 15710 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.1	6.4
10°-20°	559.9	18.7
20°-30°	823.6	27.6
30°-40°	841.9	28.2
40°-50°	485.0	16.2
50°-60°	83.6	2.8
60°-70°	3.0	0.1
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1574.6	52.7
0°-40°	2416.5	80.9
0°-60°	2985.1	99.9
0°-90°	2988.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2988.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1999	1999	1999	1999	1999	
5°	2007	2002	1985	2012	2010	192
15°	2006	2023	1976	1979	1966	565
25°	1838	1855	1791	1773	1766	839
35°	1386	1397	1375	1349	1334	856
45°	585	672	688	650	549	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	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1999.0	1999.0	1999.0	1999.0	1999.0
2.5°	2007.8	2002.3	1986.2	2004.5	2000.6
5°	2007.0	2002.1	1985.0	2012.0	2010.0
7.5°	2005.8	2002.5	1990.4	2012.5	2007.6
10°	2009.0	2008.0	1988.0	2010.9	2006.0
12.5°	2010.6	2016.7	1985.6	2003.6	1994.8
15°	2006.0	2022.6	1976.0	1978.7	1966.0
17.5°	1983.6	2007.1	1945.0	1933.6	1915.6
20°	1954.0	1981.4	1913.0	1893.6	1878.0
22.5°	1912.4	1937.4	1872.2	1848.1	1835.6
25°	1838.0	1854.6	1791.0	1772.8	1766.0
27.5°	1732.6	1737.3	1689.4	1666.8	1658.0
30°	1651.0	1651.0	1615.0	1590.6	1574.0
32.5°	1555.8	1553.5	1527.8	1501.0	1484.4
35°	1386.0	1396.8	1375.0	1348.7	1334.0
37.5°	1202.2	1206.3	1189.8	1161.5	1149.2
40°	1063.0	1064.0	1045.0	1024.6	1006.0
42.5°	900.6	920.4	902.6	870.4	862.8
45°	585.0	672.0	688.0	649.7	549.0
47.5°	294.0	402.3	470.2	365.2	258.6
50°	166.0	230.5	347.0	193.2	157.0
52.5°	110.8	139.4	240.6	126.3	105.8
55°	56.0	63.8	110.0	61.9	56.0
57.5°	19.0	29.6	47.8	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	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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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	4.09	5.22	4.46	5.53	5.85	3.71	4.84	4.07	5.15	5.47
	3H	3.92	4.91	4.30	5.24	5.61	3.54	4.53	3.92	4.86	5.23
	4H	3.83	4.75	4.24	5.10	5.49	3.45	4.37	3.86	4.72	5.11
	6H	3.74	4.57	4.15	4.95	5.34	3.36	4.19	3.77	4.56	4.96
	8H	3.69	4.47	4.12	4.86	5.27	3.30	4.09	3.74	4.48	4.89
	12H	3.63	4.38	4.07	4.77	5.20	3.25	4.00	3.69	4.38	4.82
4H	2H	3.84	4.75	4.25	5.11	5.49	3.46	4.37	3.86	4.73	5.11
	3H	3.66	4.40	4.08	4.81	5.21	3.28	4.02	3.70	4.43	4.83
	4H	3.56	4.21	3.99	4.63	5.08	3.18	3.83	3.61	4.25	4.70
	6H	3.46	4.01	3.92	4.46	4.93	3.07	3.63	3.54	4.08	4.55
	8H	3.39	3.91	3.86	4.36	4.83	3.01	3.53	3.48	3.98	4.45
	12H	3.33	3.78	3.82	4.27	4.74	2.95	3.40	3.44	3.89	4.36
8H	4H	3.39	3.91	3.86	4.36	4.83	3.01	3.53	3.48	3.98	4.45
	6H	3.27	3.69	3.77	4.19	4.67	2.88	3.31	3.39	3.81	4.29
	8H	3.19	3.57	3.72	4.09	4.59	2.81	3.19	3.34	3.71	4.21
	12H	3.13	3.47	3.65	3.97	4.54	2.75	3.09	3.27	3.59	4.16
12H	4H	3.33	3.78	3.82	4.27	4.74	2.95	3.40	3.44	3.89	4.36
	6H	3.19	3.57	3.72	4.09	4.59	2.81	3.19	3.34	3.71	4.21
	8H	3.13	3.47	3.65	3.97	4.54	2.75	3.09	3.27	3.59	4.16