

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: P853583

Luminaire Tested: SQ2-BBN-025U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853583  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2308-130-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBN-025U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

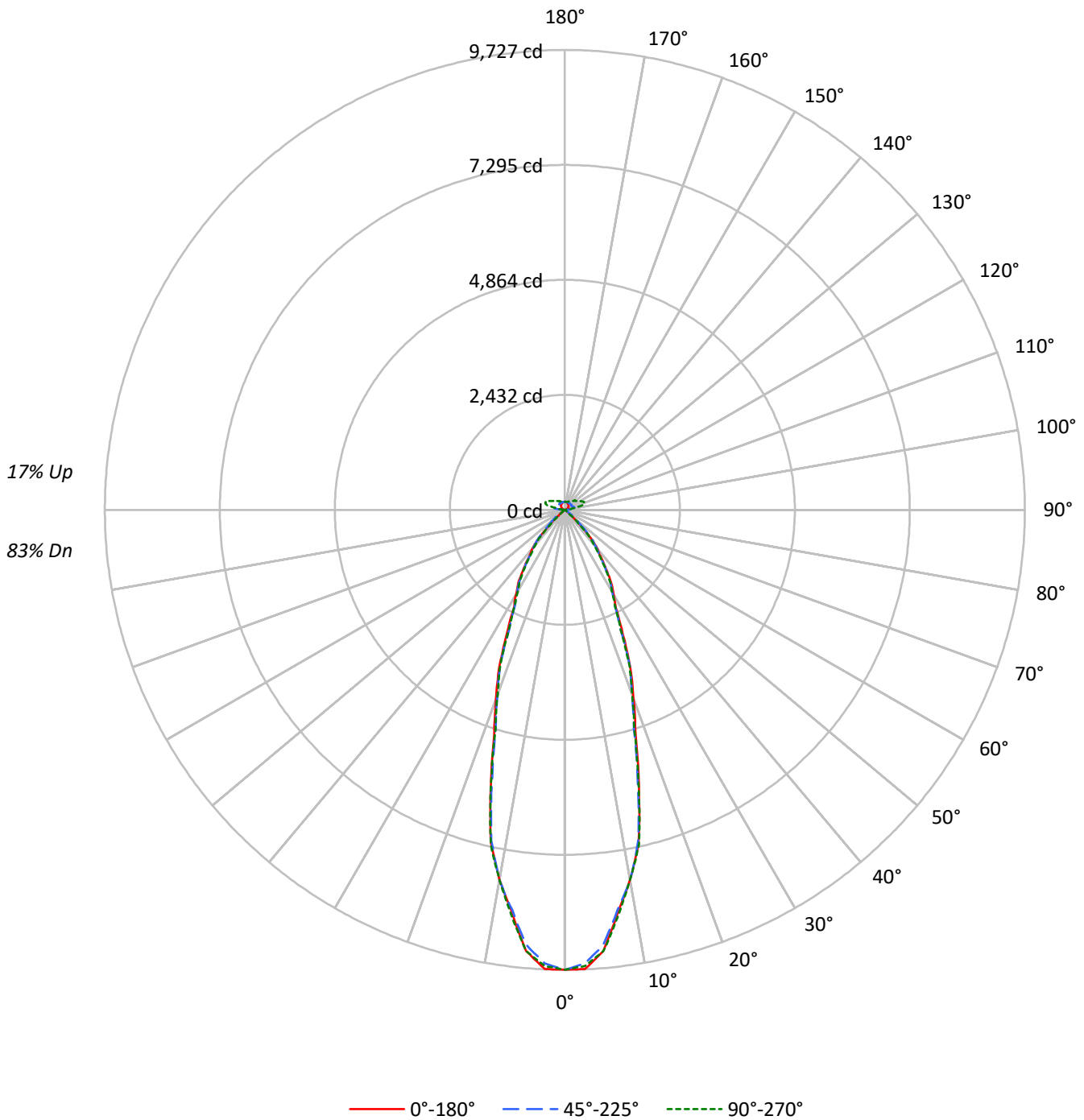
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6321.1 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 57.2  
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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	87	87	87	83
1	109	106	104	101	105	103	100	98	95	94	92	89	88	87	83	82	81	81	81	81	78
2	103	98	94	91	100	95	92	89	89	87	84	84	82	80	79	77	76	76	76	76	73
3	98	92	86	82	95	89	84	81	84	80	77	79	76	74	75	73	71	71	71	71	69
4	93	85	80	75	90	83	78	74	79	75	71	75	72	69	71	69	66	66	66	66	64
5	88	80	74	70	85	78	72	68	74	70	66	71	67	64	68	65	62	62	62	62	60
6	84	75	69	65	81	73	68	64	70	65	62	67	63	60	64	61	59	59	59	59	57
7	80	70	64	60	77	69	63	59	66	61	58	63	60	57	61	58	55	55	55	55	54
8	76	66	60	56	74	65	60	56	63	58	55	60	56	53	58	55	52	52	52	52	51
9	72	63	57	53	70	62	56	53	59	55	52	57	53	50	55	52	49	49	49	49	48
10	69	60	54	50	67	59	53	50	57	52	49	55	51	48	53	50	47	47	47	47	46

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

	0°	45°	90°
0°	157052	157052	157052
5°	151800	149924	151884
10°	130276	130361	130276
15°	101118	99507	100884
20°	72979	71472	71412
25°	51745	49684	49779
30°	38499	37518	37159
35°	29956	29195	28574
40°	22169	21614	20246
45°	11328	13890	9127
50°	2467	7661	1806
55°	690	3108	543
60°	113	623	58
65°	0	69	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: 13890 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	841.1	13.3
10°-20°	1658.3	26.2
20°-30°	1337.7	21.2
30°-40°	929.3	14.7
40°-50°	429.3	6.8
50°-60°	60.3	1.0
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	69.3	1.1
100°-110°	215.5	3.4
110°-120°	210.9	3.3
120°-130°	172.1	2.7
130°-140°	140.8	2.2
140°-150°	109.9	1.7
150°-160°	79.3	1.3
160°-170°	48.5	0.8
170°-180°	16.3	0.3
0°-30°	3837.1	60.7
0°-40°	4766.3	75.4
0°-60°	5255.9	83.1
0°-90°	5258.5	83.2
90°-120°	495.7	7.8
90°-150°	918.5	14.5
90°-180°	1063.0	16.8
0°-180°	6321.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9727	9727	9727	9727	9727	
5°	9366	9316	9250	9364	9371	842
15°	6049	6126	5953	6037	6035	1665
25°	2905	2840	2789	2830	2794	1360
35°	1520	1520	1481	1455	1450	951
45°	496	592	608	552	400	401
55°	24	38	110	31	19	31
65°	0	0	2	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°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	355	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	208	227	82
155°	150	155	170	187	193	69
165°	165	166	171	176	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9727.1	9727.1	9727.1	9727.1	9727.1
2.5°	9721.5	9685.8	9600.9	9677.4	9654.1
5°	9366.0	9316.3	9250.3	9364.4	9371.2
7.5°	8581.3	8597.5	8536.1	8662.0	8648.7
10°	7946.1	7958.1	7951.3	7992.4	7946.1
12.5°	7209.8	7257.5	7167.4	7231.0	7250.5
15°	6049.4	6126.5	5953.0	6037.1	6035.4
17.5°	4961.2	4953.3	4863.7	4879.4	4874.2
20°	4247.4	4235.4	4159.7	4147.6	4156.2
22.5°	3635.9	3615.7	3589.0	3558.7	3570.0
25°	2904.6	2839.5	2788.9	2830.2	2794.2
27.5°	2331.4	2330.4	2288.6	2293.4	2300.2
30°	2065.0	2053.0	2012.4	2013.7	1993.1
32.5°	1828.0	1836.5	1786.6	1776.7	1756.1
35°	1519.8	1519.8	1481.2	1454.8	1449.7
37.5°	1234.1	1231.0	1203.6	1166.1	1152.7
40°	1051.8	1043.2	1025.5	979.5	960.6
42.5°	844.2	867.2	850.2	804.0	775.5
45°	496.1	592.1	608.3	552.2	399.7
47.5°	213.2	318.7	406.0	264.6	137.8
50°	98.2	180.4	305.0	130.1	71.9
52.5°	57.5	98.6	226.5	76.1	45.2
55°	24.5	38.3	110.4	31.3	19.3
57.5°	9.1	16.7	41.7	13.5	7.4
60°	3.5	6.9	19.3	5.2	1.8
62.5°	0.7	2.8	9.5	2.4	0.4
65°	0.0	0.0	1.8	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	3.2	3.2	3.2
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.5	27.9	127.1	46.9	30.5
97.5°	17.2	36.3	210.5	131.0	82.6
100°	23.1	40.6	237.4	222.1	148.1
102.5°	29.0	45.6	232.4	317.2	249.0
105°	37.8	53.2	212.2	405.1	386.6
107.5°	46.6	61.0	192.9	411.8	432.2
110°	52.5	66.9	182.8	402.2	442.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.4	72.0	177.7	384.8	435.5
115°	67.2	79.6	172.3	355.4	416.0
117.5°	75.8	87.1	170.0	327.3	389.3
120°	80.9	92.2	169.1	311.2	370.8
122.5°	85.9	97.2	170.0	297.7	352.3
125°	93.5	103.8	170.2	279.5	327.7
127.5°	99.6	110.1	170.2	265.9	306.9
130°	102.9	114.2	170.2	258.2	295.2
132.5°	107.1	118.4	169.3	251.4	285.9
135°	112.4	124.7	169.1	241.2	271.0
137.5°	118.5	129.8	169.1	231.1	258.2
140°	121.9	133.2	169.1	224.3	249.0
142.5°	126.1	136.5	169.1	217.5	239.7
145°	131.3	141.6	169.1	208.4	226.9
147.5°	137.6	146.4	170.2	199.9	214.5
150°	141.8	149.0	170.2	195.6	206.9
152.5°	145.2	151.5	170.2	191.4	201.1
155°	150.2	155.4	170.2	187.1	193.3
157.5°	155.3	159.2	170.2	183.3	187.2
160°	158.6	161.7	170.2	180.8	183.8
162.5°	161.1	163.4	170.2	179.1	181.3
165°	164.9	166.0	171.2	176.5	178.6
167.5°	167.2	167.4	170.2	175.0	176.1
170°	168.1	169.1	170.2	173.4	174.4
172.5°	169.8	170.0	171.0	172.5	172.7
175°	171.2	171.2	171.2	172.3	171.2
177.5°	171.2	171.2	171.2	171.2	171.2
180°	171.2	171.2	171.2	171.2	171.2

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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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00