

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: P853572

Luminaire Tested: SQ2-BBN-025U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853572
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-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

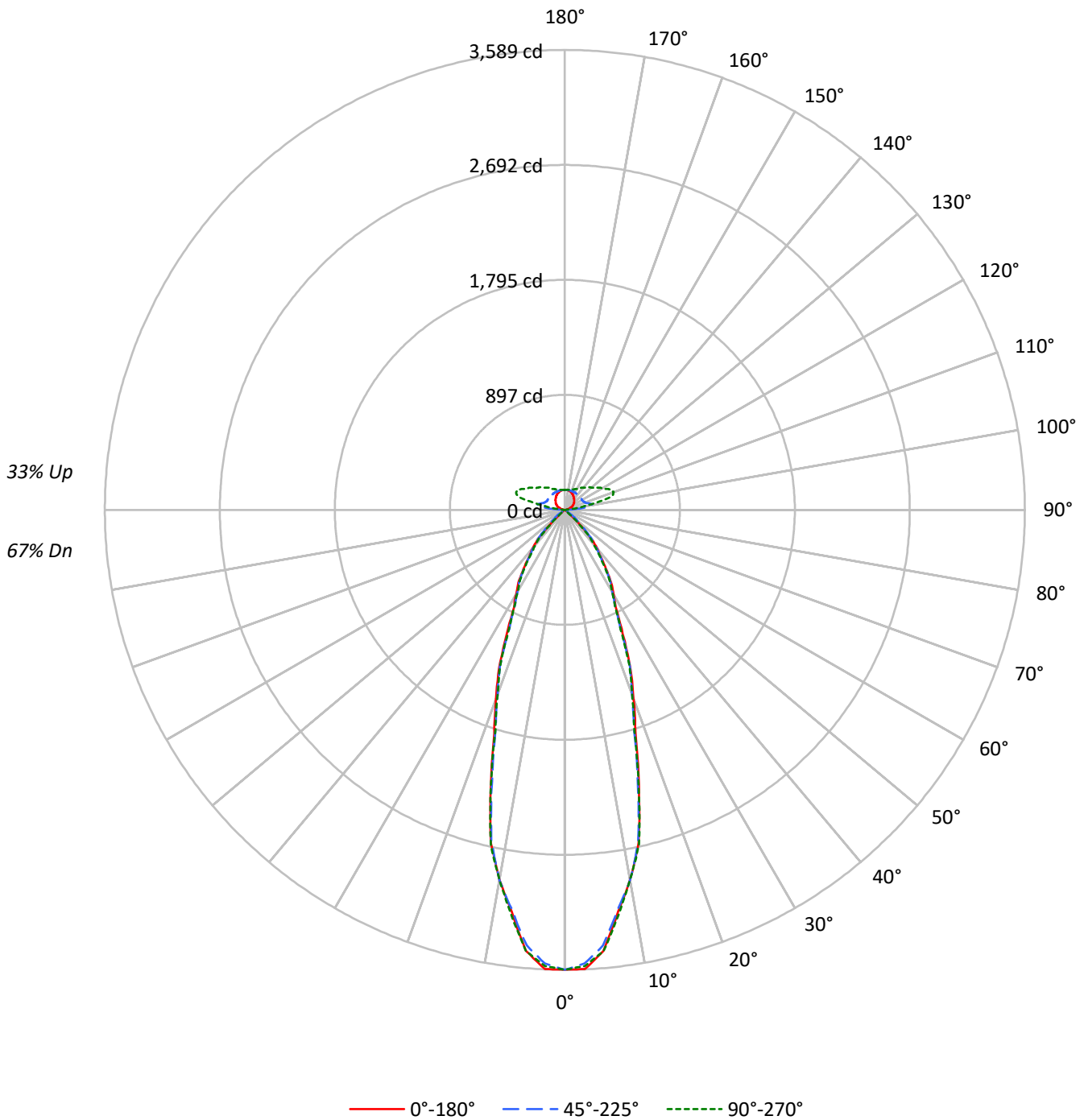
Lumens per Lamp: N/A
Luminaire Lumens: 2913.2 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.5
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	71	71	71	67
1	105	102	99	96	99	96	94	92	86	84	83	77	76	74	68	67	67	63
2	99	93	89	85	93	89	85	82	80	77	75	72	70	68	65	63	62	59
3	93	86	80	76	88	82	77	73	75	71	68	68	65	63	61	60	58	55
4	87	79	73	69	83	76	71	67	70	66	62	64	61	58	58	56	54	51
5	82	74	67	63	78	71	65	61	65	61	58	60	57	54	55	53	51	48
6	78	69	62	58	74	66	60	56	61	57	53	57	53	51	52	50	48	45
7	74	64	58	54	70	62	56	52	58	53	50	54	50	47	50	47	45	43
8	70	60	54	50	67	58	53	49	54	50	47	51	47	44	47	44	42	41
9	66	57	51	47	64	55	49	46	51	47	44	48	45	42	45	42	40	38
10	63	53	48	44	61	52	46	43	49	44	41	46	42	40	43	40	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	57949	57949	57949
5°	56010	55319	56042
10°	48068	48101	48068
15°	37310	36715	37224
20°	26928	26373	26350
25°	19092	18333	18367
30°	14205	13843	13711
35°	11054	10772	10543
40°	8180	7975	7470
45°	4179	5124	3368
50°	909	2826	666
55°	256	1146	200
60°	42	229	19
65°	0	23	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: 5124 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.4	10.7
10°-20°	611.9	21.0
20°-30°	493.6	16.9
30°-40°	342.9	11.8
40°-50°	158.4	5.4
50°-60°	22.2	0.8
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	63.4	2.2
100°-110°	197.3	6.8
110°-120°	193.0	6.6
120°-130°	157.6	5.4
130°-140°	128.9	4.4
140°-150°	100.6	3.5
150°-160°	72.6	2.5
160°-170°	44.4	1.5
170°-180°	15.0	0.5
0°-30°	1415.8	48.6
0°-40°	1758.7	60.4
0°-60°	1939.3	66.6
0°-90°	1940.6	66.6
90°-120°	453.7	15.6
90°-150°	840.8	28.9
90°-180°	973.0	33.4
0°-180°	2913.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3589	3589	3589	3589	3589	
5°	3456	3438	3413	3455	3458	311
15°	2232	2261	2196	2228	2227	614
25°	1072	1048	1029	1044	1031	502
35°	561	561	546	537	535	351
45°	183	218	224	204	148	148
55°	9	14	41	12	7	11
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	26	116	43	28	10
105°	35	49	194	371	354	37
115°	62	73	158	325	381	61
125°	86	95	156	256	300	76
135°	103	114	155	221	248	80
145°	120	130	155	191	208	75
155°	138	142	156	171	177	63
165°	151	152	157	162	164	42
175°	157	157	157	158	157	15
180°	157	157	157	157	157	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3589.1	3589.1	3589.1	3589.1	3589.1
2.5°	3587.0	3573.9	3542.5	3570.8	3562.2
5°	3455.8	3437.5	3413.2	3455.3	3457.8
7.5°	3166.3	3172.3	3149.7	3196.1	3191.2
10°	2931.9	2936.4	2933.9	2949.0	2931.9
12.5°	2660.3	2677.9	2644.6	2668.1	2675.3
15°	2232.1	2260.6	2196.5	2227.6	2226.9
17.5°	1830.6	1827.7	1794.6	1800.4	1798.5
20°	1567.2	1562.8	1534.9	1530.4	1533.6
22.5°	1341.6	1334.1	1324.3	1313.1	1317.3
25°	1071.7	1047.7	1029.1	1044.3	1031.0
27.5°	860.2	859.9	844.5	846.2	848.7
30°	761.9	757.5	742.5	743.0	735.4
32.5°	674.5	677.6	659.2	655.6	648.0
35°	560.8	560.8	546.5	536.8	534.9
37.5°	455.3	454.2	444.1	430.3	425.3
40°	388.1	384.9	378.4	361.4	354.4
42.5°	311.5	320.0	313.7	296.6	286.1
45°	183.0	218.5	224.4	203.8	147.5
47.5°	78.7	117.6	149.8	97.6	50.8
50°	36.2	66.6	112.5	48.0	26.5
52.5°	21.2	36.4	83.6	28.1	16.7
55°	9.1	14.1	40.7	11.5	7.1
57.5°	3.4	6.1	15.4	5.0	2.7
60°	1.3	2.6	7.1	1.9	0.6
62.5°	0.3	1.0	3.5	0.9	0.1
65°	0.0	0.0	0.6	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	0.9	2.9	2.9	2.9
92.5°	3.1	10.8	36.7	12.1	9.8
95°	8.7	25.6	116.3	42.9	27.9
97.5°	15.8	33.3	192.7	119.9	75.6
100°	21.2	37.1	217.3	203.3	135.6
102.5°	26.5	41.8	212.7	290.3	227.9
105°	34.6	48.7	194.2	370.7	353.8
107.5°	42.7	55.9	176.5	376.9	395.6
110°	48.1	61.2	167.3	368.1	404.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.5	65.9	162.7	352.2	398.6
115°	61.5	72.8	157.7	325.3	380.7
117.5°	69.4	79.8	155.6	299.5	356.3
120°	74.0	84.4	154.8	284.9	339.4
122.5°	78.6	89.0	155.6	272.5	322.5
125°	85.6	95.0	155.8	255.8	300.0
127.5°	91.1	100.7	155.8	243.3	280.9
130°	94.2	104.6	155.8	236.3	270.2
132.5°	98.1	108.4	155.0	230.1	261.7
135°	102.9	114.2	154.8	220.8	248.1
137.5°	108.5	118.8	154.8	211.5	236.3
140°	111.5	121.9	154.8	205.3	227.9
142.5°	115.4	125.0	154.8	199.1	219.4
145°	120.2	129.6	154.8	190.8	207.7
147.5°	126.0	134.0	155.8	183.0	196.3
150°	129.8	136.4	155.8	179.1	189.4
152.5°	132.9	138.7	155.8	175.2	184.0
155°	137.5	142.2	155.8	171.3	176.9
157.5°	142.1	145.7	155.8	167.8	171.3
160°	145.2	148.0	155.8	165.4	168.3
162.5°	147.5	149.6	155.8	163.9	166.0
165°	151.0	151.9	156.7	161.6	163.5
167.5°	153.1	153.3	155.8	160.2	161.1
170°	153.8	154.8	155.8	158.7	159.6
172.5°	155.4	155.6	156.5	157.9	158.1
175°	156.7	156.7	156.7	157.7	156.7
177.5°	156.7	156.7	156.7	156.7	156.7
180°	156.7	156.7	156.7	156.7	156.7



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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