

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: P853584

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853584
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-050U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

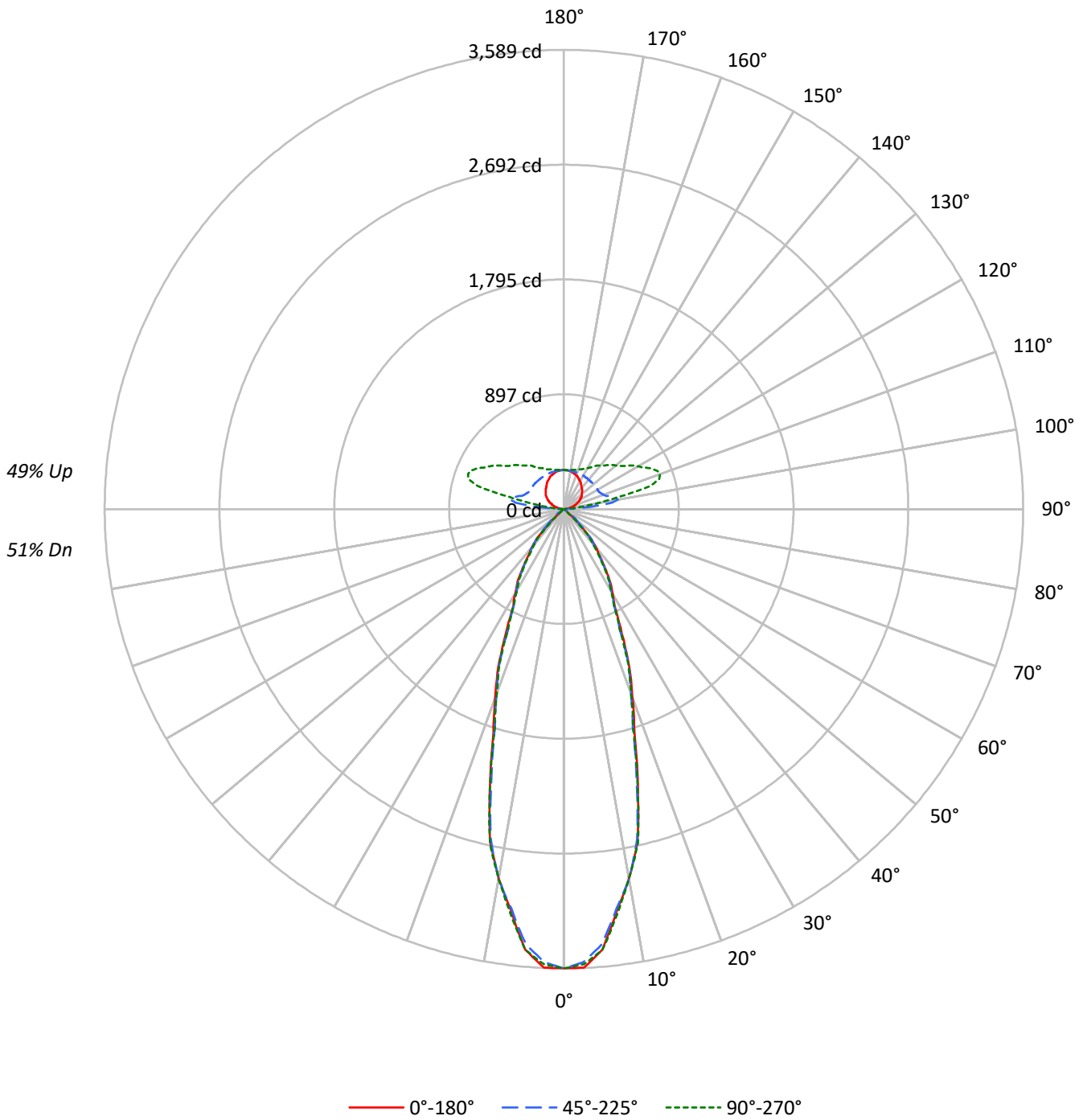
Lumens per Lamp: N/A
Luminaire Lumens: 3839.5 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.9
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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	100	97	94	91	93	90	88	85	77	75	74	65	64	63	54	53	53	48
2	94	88	83	79	87	82	78	75	71	68	66	61	59	57	51	50	49	45
3	88	80	75	70	81	75	70	66	66	62	59	57	54	52	48	47	45	42
4	82	74	67	63	76	69	64	60	61	57	54	53	50	48	46	44	42	39
5	77	68	61	57	72	64	58	54	56	52	49	50	47	44	43	41	40	37
6	72	63	56	51	68	59	53	49	53	48	45	47	43	41	41	39	37	35
7	68	58	52	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33
8	64	54	48	43	60	51	46	42	46	42	39	41	38	36	37	35	33	31
9	61	51	44	40	57	48	43	39	44	39	36	39	36	34	35	33	31	29
10	58	48	41	37	54	45	40	36	41	37	34	37	34	32	33	31	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	57944	57944	57944
5°	56007	55315	56037
10°	48065	48098	48065
15°	37307	36714	37222
20°	26926	26369	26347
25°	19092	18332	18365
30°	14205	13843	13711
35°	11052	10772	10543
40°	8180	7973	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°	310.3	8.1
10°-20°	611.8	15.9
20°-30°	493.5	12.9
30°-40°	342.9	8.9
40°-50°	158.4	4.1
50°-60°	22.2	0.6
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	121.8	3.2
100°-110°	386.3	10.1
110°-120°	378.8	9.9
120°-130°	308.3	8.0
130°-140°	251.4	6.5
140°-150°	196.0	5.1
150°-160°	141.2	3.7
160°-170°	86.3	2.2
170°-180°	29.1	0.8
0°-30°	1415.7	36.9
0°-40°	1758.6	45.8
0°-60°	1939.2	50.5
0°-90°	1940.4	50.5
90°-120°	887.0	23.1
90°-150°	1642.6	42.8
90°-180°	1899.0	49.5
0°-180°	3839.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3589	3589	3589	3589	3589	
5°	3456	3437	3413	3455	3458	311
15°	2232	2260	2196	2227	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	1
95°	16	49	221	82	53	19
105°	67	95	381	725	695	71
115°	120	143	308	639	752	119
125°	166	186	303	501	590	148
135°	201	221	301	431	486	155
145°	235	252	301	372	405	147
155°	267	277	302	332	345	123
165°	291	294	303	314	317	82
175°	305	304	305	307	306	29
180°	306	306	306	306	306	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3588.8	3588.8	3588.8	3588.8	3588.8
2.5°	3586.8	3573.6	3542.3	3570.5	3561.9
5°	3455.6	3437.3	3412.9	3455.0	3457.5
7.5°	3166.1	3172.1	3149.4	3195.9	3190.9
10°	2931.7	2936.2	2933.7	2948.8	2931.7
12.5°	2660.1	2677.7	2644.4	2667.9	2675.1
15°	2231.9	2260.4	2196.4	2227.4	2226.8
17.5°	1830.4	1827.5	1794.5	1800.3	1798.4
20°	1567.1	1562.7	1534.7	1530.3	1533.4
22.5°	1341.5	1334.0	1324.2	1313.0	1317.2
25°	1071.7	1047.6	1029.0	1044.2	1030.9
27.5°	860.2	859.8	844.4	846.1	848.7
30°	761.9	757.4	742.5	742.9	735.4
32.5°	674.4	677.6	659.2	655.5	647.9
35°	560.7	560.7	546.5	536.8	534.9
37.5°	455.3	454.2	444.1	430.2	425.3
40°	388.1	384.9	378.3	361.4	354.4
42.5°	311.5	319.9	313.7	296.6	286.1
45°	183.0	218.4	224.4	203.7	147.5
47.5°	78.6	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°	5.4	21.4	68.3	22.7	16.0
95°	16.3	49.3	221.2	82.0	52.9
97.5°	30.4	63.9	374.7	234.1	143.7
100°	40.4	72.4	427.0	389.3	252.9
102.5°	51.2	81.6	417.8	571.7	437.6
105°	67.3	94.6	380.8	725.4	695.3
107.5°	83.5	108.7	345.6	741.4	782.1
110°	94.2	118.7	327.9	723.0	798.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.0	128.0	317.9	691.1	786.7
115°	120.2	142.8	307.7	639.2	752.1
117.5°	135.0	156.5	303.7	589.2	703.0
120°	144.3	164.9	302.9	558.4	668.4
122.5°	153.5	173.4	302.9	533.6	636.1
125°	166.4	186.1	302.9	501.2	590.5
127.5°	177.7	196.7	302.9	476.0	552.2
130°	184.6	204.4	302.9	461.3	529.9
132.5°	191.6	211.3	302.2	449.6	511.4
135°	201.0	220.7	301.0	431.1	485.7
137.5°	210.2	230.9	300.8	413.5	462.2
140°	216.4	237.1	300.1	401.1	445.3
142.5°	224.1	244.0	300.8	388.7	429.9
145°	234.7	252.5	301.0	372.0	404.9
147.5°	245.2	260.5	301.2	357.2	384.1
150°	252.9	265.2	302.0	348.6	370.3
152.5°	259.1	269.8	302.0	341.6	359.5
155°	267.4	276.8	302.0	332.1	345.3
157.5°	276.2	282.6	302.9	326.2	335.3
160°	280.8	286.5	302.9	322.3	329.9
162.5°	285.4	289.6	302.9	319.2	324.5
165°	291.4	294.2	302.9	314.5	317.4
167.5°	297.0	297.7	303.9	311.3	313.7
170°	300.1	300.1	303.9	309.7	310.6
172.5°	301.6	302.3	303.9	308.1	308.3
175°	304.9	303.9	304.9	306.8	305.8
177.5°	305.8	305.1	305.1	306.6	305.1
180°	305.8	305.8	305.8	305.8	305.8



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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