

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: P853587

Luminaire Tested: SQ2-BBN-050U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853587
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-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

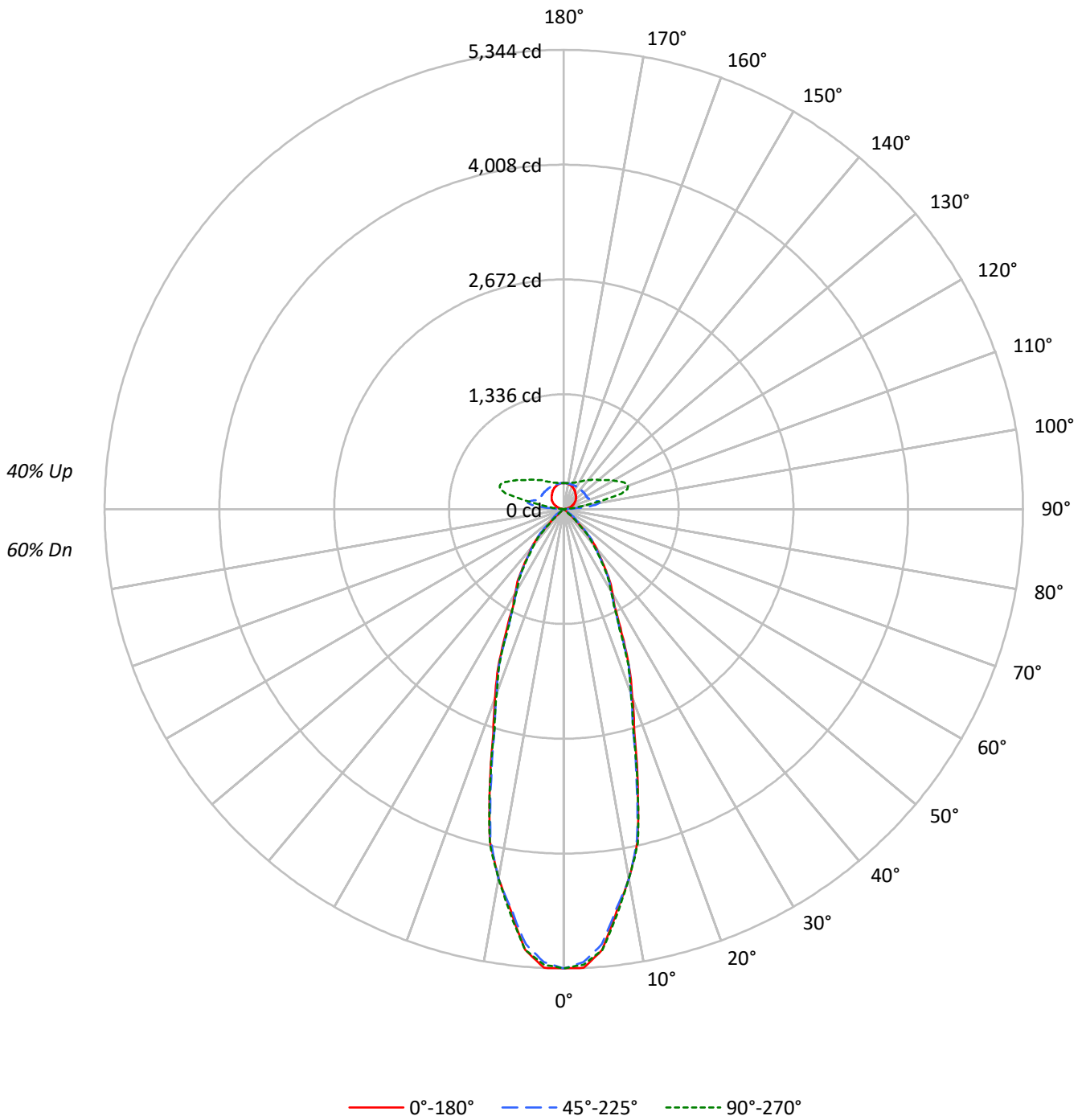
Lumens per Lamp: N/A
Luminaire Lumens: 4779.8 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 42.4
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

TEST NUMBER: P853587

CATALOG NUMBER: SQ2-BBN-050U-075D-930-UNV-STD-W-4

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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	66	66	66	60	
1	103	100	97	94	97	94	91	89	83	81	79	72	71	70	63	62	61	61	61	61	57	
2	97	91	87	83	91	86	82	79	77	74	71	68	66	64	59	58	57	57	57	57	53	
3	91	84	78	74	85	79	75	71	71	68	65	63	61	59	56	55	53	53	53	53	50	
4	85	77	71	67	80	73	68	64	66	62	59	60	57	54	53	51	50	50	50	50	47	
5	80	71	65	60	76	68	63	58	62	58	54	56	53	50	51	48	46	46	46	46	44	
6	76	66	60	55	72	63	58	54	58	54	50	53	49	47	48	46	44	44	44	44	41	
7	72	62	56	51	68	59	54	50	54	50	47	50	46	44	46	43	41	41	41	41	39	
8	68	58	52	47	64	56	50	46	51	47	44	47	44	41	43	41	39	39	39	39	37	
9	64	54	48	44	61	52	47	43	48	44	41	45	41	39	41	39	37	37	37	37	35	
10	61	51	45	41	58	49	44	40	46	41	38	43	39	37	39	37	35	35	35	35	33	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	86290	86290	86290
5°	83402	82373	83449
10°	71577	71624	71577
15°	55557	54673	55428
20°	40096	39270	39237
25°	28431	27298	27350
30°	21153	20614	20417
35°	16458	16040	15699
40°	12180	11875	11124
45°	6224	7631	5014
50°	1354	4210	992
55°	380	1709	298
60°	61	342	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: 7631 cd/sqm



TEST NUMBER: P853587

CATALOG NUMBER: SQ2-BBN-050U-075D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.1	9.7
10°-20°	911.1	19.1
20°-30°	735.0	15.4
30°-40°	510.6	10.7
40°-50°	235.9	4.9
50°-60°	33.1	0.7
60°-70°	1.1	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	121.3	2.5
100°-110°	384.6	8.0
110°-120°	377.1	7.9
120°-130°	306.9	6.4
130°-140°	250.2	5.2
140°-150°	195.1	4.1
150°-160°	140.6	2.9
160°-170°	85.9	1.8
170°-180°	29.0	0.6
0°-30°	2108.2	44.1
0°-40°	2618.8	54.8
0°-60°	2887.8	60.4
0°-90°	2889.4	60.4
90°-120°	883.0	18.5
90°-150°	1635.1	34.2
90°-180°	1891.0	39.6
0°-180°	4779.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5344	5344	5344	5344	5344	
5°	5146	5119	5082	5145	5149	462
15°	3324	3366	3271	3317	3316	915
25°	1596	1560	1532	1555	1535	747
35°	835	835	814	799	796	523
45°	273	325	334	303	220	220
55°	14	21	61	17	11	17
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	220	82	53	19
105°	67	94	379	722	692	71
115°	120	142	306	636	749	118
125°	166	185	302	499	588	147
135°	200	220	300	429	483	154
145°	234	251	300	370	403	146
155°	266	276	301	331	344	123
165°	290	293	302	313	316	82
175°	304	302	304	305	304	29
180°	304	304	304	304	304	



TEST NUMBER: P853587

CATALOG NUMBER: SQ2-BBN-050U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5344.4	5344.4	5344.4	5344.4	5344.4
2.5°	5341.3	5321.7	5275.0	5317.1	5304.3
5°	5145.9	5118.6	5082.4	5145.1	5148.8
7.5°	4714.9	4723.7	4690.0	4759.2	4751.8
10°	4365.8	4372.4	4368.7	4391.2	4365.8
12.5°	3961.3	3987.5	3938.0	3972.9	3983.7
15°	3323.7	3366.1	3270.8	3317.0	3316.0
17.5°	2725.8	2721.5	2672.3	2680.9	2678.1
20°	2333.6	2327.0	2285.5	2278.8	2283.6
22.5°	1997.7	1986.6	1971.9	1955.3	1961.5
25°	1595.9	1560.1	1532.3	1555.0	1535.2
27.5°	1280.9	1280.4	1257.4	1260.0	1263.8
30°	1134.6	1128.0	1105.7	1106.4	1095.1
32.5°	1004.3	1009.0	981.6	976.2	964.9
35°	835.0	835.0	813.8	799.3	796.5
37.5°	678.0	676.3	661.3	640.7	633.3
40°	577.9	573.2	563.4	538.1	527.8
42.5°	463.8	476.5	467.1	441.7	426.1
45°	272.6	325.3	334.2	303.4	219.6
47.5°	117.1	175.1	223.1	145.4	75.7
50°	53.9	99.1	167.6	71.5	39.5
52.5°	31.6	54.2	124.4	41.8	24.8
55°	13.5	21.0	60.7	17.2	10.6
57.5°	5.0	9.2	22.9	7.4	4.0
60°	1.9	3.8	10.6	2.8	1.0
62.5°	0.4	1.5	5.2	1.3	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	0.9	2.9	2.9	2.9
92.5°	5.4	21.3	68.0	22.6	15.9
95°	16.3	49.0	220.2	81.7	52.7
97.5°	30.3	63.6	373.0	233.1	143.0
100°	40.2	72.0	425.1	387.5	251.8
102.5°	50.9	81.3	415.9	569.1	435.6
105°	67.0	94.2	379.1	722.1	692.1
107.5°	83.1	108.2	344.1	738.1	778.5
110°	93.8	118.2	326.4	719.7	794.6



TEST NUMBER: P853587

CATALOG NUMBER: SQ2-BBN-050U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.5	127.4	316.5	688.0	783.1
115°	119.7	142.1	306.3	636.3	748.6
117.5°	134.4	155.8	302.3	586.5	699.8
120°	143.6	164.2	301.6	555.8	665.3
122.5°	152.8	172.6	301.6	531.1	633.2
125°	165.6	185.3	301.6	498.9	587.8
127.5°	176.9	195.8	301.6	473.9	549.7
130°	183.8	203.5	301.6	459.2	527.5
132.5°	190.7	210.4	300.8	447.5	509.1
135°	200.1	219.7	299.6	429.2	483.4
137.5°	209.3	229.9	299.5	411.6	460.1
140°	215.4	236.0	298.7	399.2	443.2
142.5°	223.1	242.9	299.5	386.9	427.9
145°	233.6	251.4	299.6	370.3	403.0
147.5°	244.1	259.3	299.8	355.6	382.4
150°	251.8	263.9	300.6	347.0	368.6
152.5°	257.9	268.6	300.6	340.1	357.8
155°	266.1	275.5	300.6	330.6	343.7
157.5°	274.9	281.3	301.6	324.7	333.7
160°	279.5	285.2	301.6	320.9	328.4
162.5°	284.1	288.3	301.6	317.8	323.0
165°	290.1	292.9	301.6	313.1	315.9
167.5°	295.6	296.4	302.5	309.8	312.3
170°	298.7	298.7	302.5	308.3	309.2
172.5°	300.2	301.0	302.5	306.7	306.9
175°	303.5	302.5	303.5	305.4	304.4
177.5°	304.4	303.7	303.7	305.2	303.7
180°	304.4	304.4	304.4	304.4	304.4

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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