

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: P853591

Luminaire Tested: SQ2-BBN-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853591
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-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

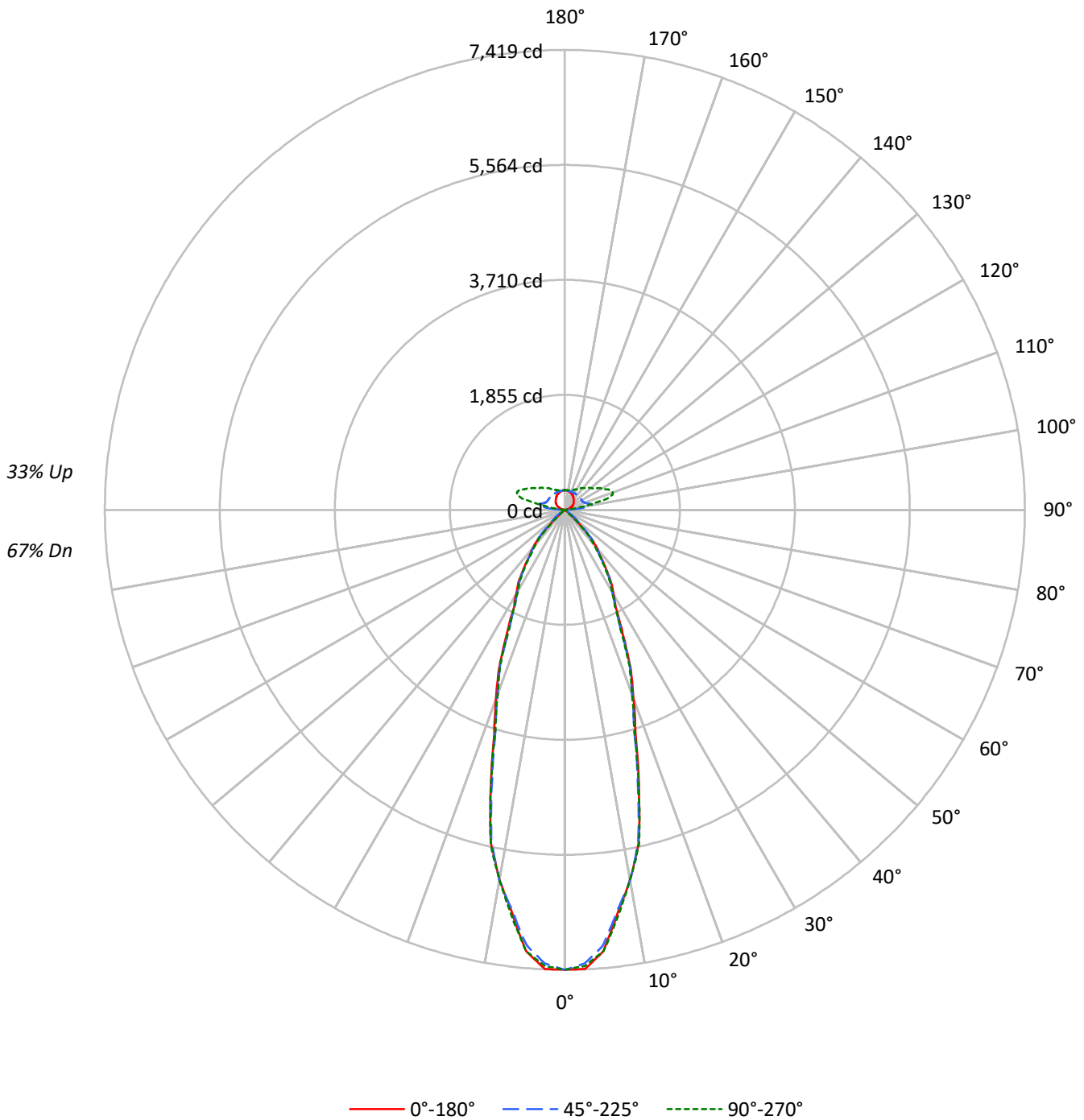
Lumens per Lamp: N/A
Luminaire Lumens: 5967.7 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.9
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

TEST NUMBER: P853591

CATALOG NUMBER: SQ2-BBN-050U-100D-935-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	0
RCR																		
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	105	102	99	97	99	96	94	92	86	85	83	77	76	75	69	68	67	63
2	99	93	89	85	93	89	85	82	80	78	75	72	70	69	65	64	63	59
3	93	86	81	76	88	82	77	74	75	71	68	68	66	63	62	60	58	55
4	88	80	74	69	83	76	71	67	70	66	63	64	61	59	59	56	55	52
5	83	74	68	63	79	71	66	61	65	61	58	60	57	54	56	53	51	49
6	78	69	63	58	74	66	61	57	61	57	54	57	54	51	53	50	48	46
7	74	64	58	54	71	62	57	53	58	53	50	54	50	48	50	47	45	43
8	70	60	54	50	67	58	53	49	55	50	47	51	47	45	48	45	43	41
9	67	57	51	47	64	55	50	46	52	47	44	49	45	42	45	43	40	39
10	63	54	48	44	61	52	47	43	49	45	42	46	43	40	43	41	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	119792	119792	119792
5°	115786	114355	115851
10°	99368	99435	99368
15°	77128	75900	76949
20°	55665	54517	54471
25°	39469	37898	37969
30°	29366	28618	28342
35°	22848	22269	21796
40°	16908	16486	15443
45°	8640	10595	6962
50°	1881	5845	1376
55°	526	2370	414
60°	87	475	42
65°	0	50	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: 10595 cd/sqm



TEST NUMBER: P853591

CATALOG NUMBER: SQ2-BBN-050U-100D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	641.6	10.8
10°-20°	1264.9	21.2
20°-30°	1020.3	17.1
30°-40°	708.8	11.9
40°-50°	327.5	5.5
50°-60°	46.0	0.8
60°-70°	1.6	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	125.5	2.1
100°-110°	398.1	6.7
110°-120°	390.3	6.5
120°-130°	317.6	5.3
130°-140°	259.0	4.3
140°-150°	201.9	3.4
150°-160°	145.5	2.4
160°-170°	88.9	1.5
170°-180°	30.0	0.5
0°-30°	2926.7	49.0
0°-40°	3635.6	60.9
0°-60°	4009.0	67.2
0°-90°	4011.1	67.2
90°-120°	913.9	15.3
90°-150°	1692.4	28.4
90°-180°	1957.0	32.8
0°-180°	5967.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7419	7419	7419	7419	7419	
5°	7144	7106	7056	7143	7148	642
15°	4614	4673	4541	4605	4604	1270
25°	2216	2166	2127	2159	2131	1037
35°	1159	1159	1130	1110	1106	725
45°	378	452	464	421	305	306
55°	19	29	84	24	15	24
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°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	



TEST NUMBER: P853591

CATALOG NUMBER: SQ2-BBN-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7419.4	7419.4	7419.4	7419.4	7419.4
2.5°	7415.1	7387.9	7323.1	7381.6	7363.8
5°	7144.0	7106.1	7055.7	7142.7	7148.0
7.5°	6545.5	6557.8	6511.0	6607.0	6596.8
10°	6060.9	6070.1	6065.0	6096.2	6060.9
12.5°	5499.4	5535.7	5467.0	5515.5	5530.4
15°	4614.2	4673.1	4540.7	4604.8	4603.5
17.5°	3784.2	3778.2	3709.8	3721.8	3717.9
20°	3239.7	3230.6	3172.9	3163.7	3170.2
22.5°	2773.4	2757.9	2737.5	2714.4	2723.1
25°	2215.5	2165.8	2127.3	2158.7	2131.3
27.5°	1778.3	1777.5	1745.7	1749.3	1754.5
30°	1575.1	1565.9	1535.0	1535.9	1520.2
32.5°	1394.3	1400.8	1362.7	1355.2	1339.5
35°	1159.2	1159.2	1129.8	1109.7	1105.8
37.5°	941.3	938.9	918.0	889.5	879.3
40°	802.2	795.7	782.2	747.1	732.7
42.5°	643.9	661.5	648.5	613.2	591.5
45°	378.4	451.6	464.0	421.2	304.9
47.5°	162.6	243.1	309.7	201.8	105.1
50°	74.9	137.6	232.7	99.3	54.8
52.5°	43.9	75.2	172.7	58.0	34.5
55°	18.7	29.2	84.2	23.9	14.7
57.5°	7.0	12.7	31.8	10.3	5.6
60°	2.7	5.3	14.7	4.0	1.3
62.5°	0.5	2.1	7.2	1.8	0.3
65°	0.0	0.0	1.3	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	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



TEST NUMBER: P853591

CATALOG NUMBER: SQ2-BBN-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1



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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