

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: P853592

Luminaire Tested: SQ2-BBN-050U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853592
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-940-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

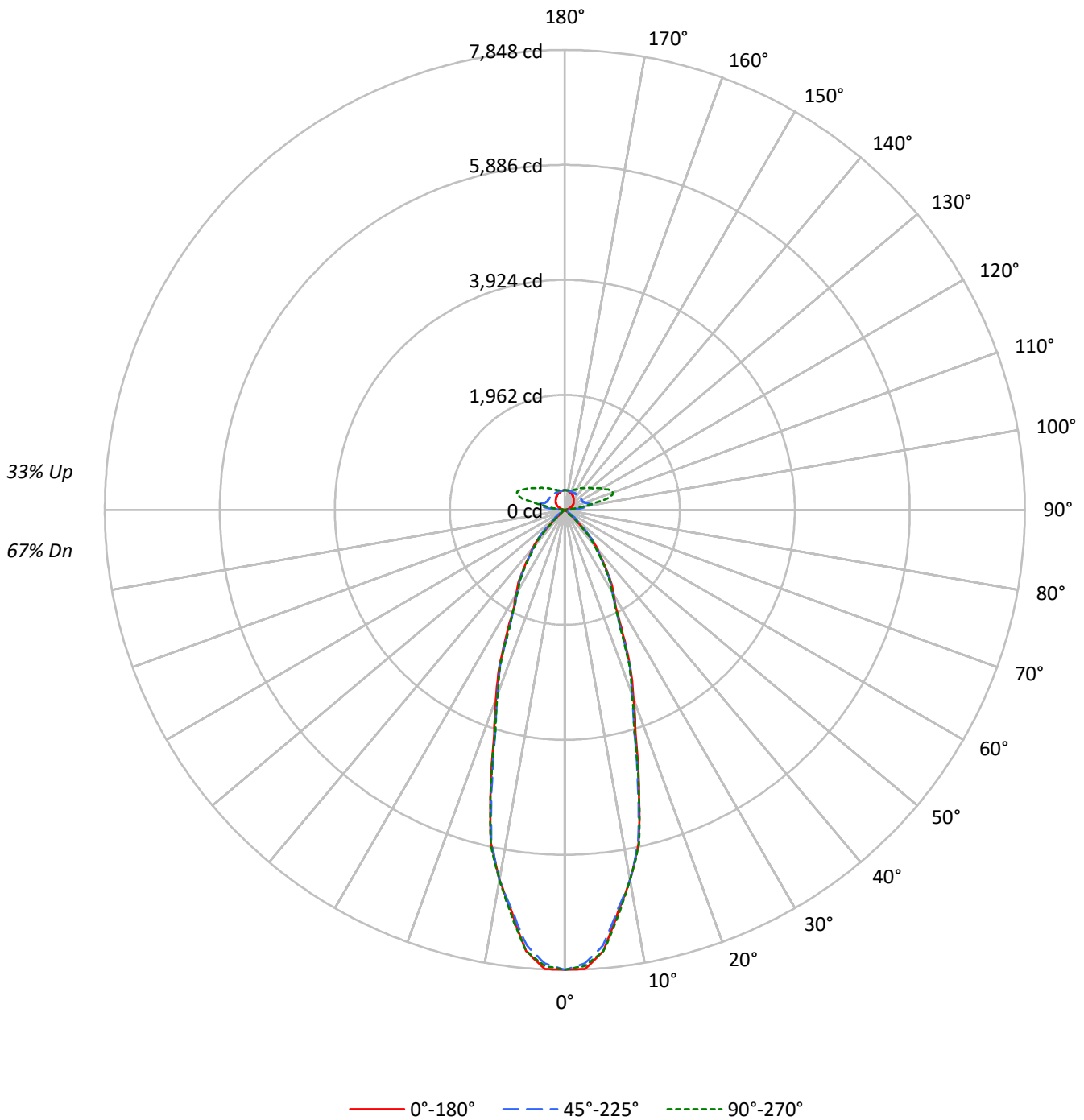
Lumens per Lamp: N/A
Luminaire Lumens: 6312.5 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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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	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°	126713	126713	126713
5°	122475	120962	122543
10°	105109	105178	105109
15°	81585	80284	81396
20°	58881	57666	57617
25°	41749	40087	40162
30°	31062	30270	29981
35°	24169	23556	23053
40°	17886	17439	16335
45°	9138	11207	7364
50°	1989	6182	1457
55°	557	2508	439
60°	90	504	45
65°	0	53	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: 11207 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	678.6	10.8
10°-20°	1337.9	21.2
20°-30°	1079.3	17.1
30°-40°	749.8	11.9
40°-50°	346.4	5.5
50°-60°	48.6	0.8
60°-70°	1.7	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	132.7	2.1
100°-110°	421.1	6.7
110°-120°	412.9	6.5
120°-130°	336.0	5.3
130°-140°	273.9	4.3
140°-150°	213.6	3.4
150°-160°	153.9	2.4
160°-170°	94.0	1.5
170°-180°	31.7	0.5
0°-30°	3095.8	49.0
0°-40°	3845.6	60.9
0°-60°	4240.6	67.2
0°-90°	4242.8	67.2
90°-120°	966.7	15.3
90°-150°	1790.2	28.4
90°-180°	2070.0	32.8
0°-180°	6312.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7848	7848	7848	7848	7848	
5°	7557	7516	7463	7555	7561	679
15°	4881	4943	4803	4871	4870	1344
25°	2344	2291	2250	2283	2254	1097
35°	1226	1226	1195	1174	1170	767
45°	400	478	491	446	322	323
55°	20	31	89	25	16	25
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°	18	54	241	89	58	21
105°	73	103	415	791	758	77
115°	131	156	335	697	820	129
125°	181	203	330	546	644	161
135°	219	241	328	470	529	169
145°	256	275	328	405	441	160
155°	291	302	329	362	376	134
165°	318	321	330	343	346	90
175°	332	331	332	334	333	31
180°	333	333	333	333	333	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7848.0	7848.0	7848.0	7848.0	7848.0
2.5°	7843.5	7814.7	7746.2	7808.0	7789.2
5°	7556.7	7516.5	7463.3	7555.4	7560.9
7.5°	6923.6	6936.6	6887.1	6988.7	6977.9
10°	6411.1	6420.7	6415.3	6448.4	6411.1
12.5°	5817.1	5855.5	5782.8	5834.1	5849.9
15°	4880.8	4943.0	4803.0	4870.8	4869.5
17.5°	4002.8	3996.4	3924.1	3936.8	3932.6
20°	3426.9	3417.2	3356.2	3346.4	3353.3
22.5°	2933.6	2917.2	2895.7	2871.3	2880.4
25°	2343.5	2291.0	2250.2	2283.4	2254.4
27.5°	1881.0	1880.2	1846.5	1850.3	1855.9
30°	1666.1	1656.4	1623.6	1624.7	1608.1
32.5°	1474.8	1481.8	1441.5	1433.4	1416.9
35°	1226.2	1226.2	1195.1	1173.8	1169.6
37.5°	995.7	993.2	971.1	940.8	930.0
40°	848.6	841.7	827.4	790.3	775.0
42.5°	681.1	699.7	685.9	648.6	625.7
45°	400.2	477.7	490.8	445.5	322.5
47.5°	172.0	257.2	327.6	213.5	111.2
50°	79.2	145.6	246.1	105.0	58.0
52.5°	46.4	79.6	182.7	61.4	36.5
55°	19.8	30.9	89.1	25.2	15.6
57.5°	7.4	13.4	33.7	10.9	5.9
60°	2.8	5.6	15.6	4.2	1.4
62.5°	0.6	2.2	7.6	1.9	0.3
65°	0.0	0.0	1.4	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	3.1	3.1	3.1
92.5°	5.9	23.3	74.4	24.8	17.4
95°	17.8	53.7	241.1	89.4	57.6
97.5°	33.1	69.6	408.3	255.2	156.6
100°	44.0	78.9	465.4	424.3	275.7
102.5°	55.8	89.0	455.3	623.0	476.9
105°	73.4	103.1	415.1	790.6	757.8
107.5°	91.0	118.4	376.7	808.0	852.3
110°	102.7	129.4	357.4	787.9	869.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.5	139.5	346.5	753.2	857.4
115°	131.0	155.6	335.4	696.6	819.6
117.5°	147.2	170.5	331.0	642.2	766.2
120°	157.2	179.8	330.2	608.5	728.4
122.5°	167.3	189.0	330.2	581.5	693.2
125°	181.3	202.8	330.2	546.2	643.5
127.5°	193.7	214.4	330.2	518.8	601.8
130°	201.2	222.8	330.2	502.7	577.5
132.5°	208.8	230.3	329.3	490.0	557.4
135°	219.1	240.6	328.1	469.9	529.3
137.5°	229.1	251.7	327.8	450.6	503.7
140°	235.8	258.4	327.0	437.1	485.3
142.5°	244.2	265.9	327.8	423.6	468.5
145°	255.7	275.2	328.1	405.4	441.3
147.5°	267.3	283.9	328.3	389.3	418.6
150°	275.7	289.0	329.1	380.0	403.5
152.5°	282.4	294.0	329.1	372.3	391.8
155°	291.4	301.6	329.1	361.9	376.3
157.5°	301.0	308.0	330.2	355.5	365.4
160°	306.0	312.2	330.2	351.3	359.5
162.5°	311.1	315.6	330.2	347.9	353.6
165°	317.6	320.7	330.2	342.8	345.9
167.5°	323.7	324.5	331.2	339.2	341.9
170°	327.0	327.0	331.2	337.5	338.5
172.5°	328.7	329.5	331.2	335.8	336.0
175°	332.3	331.2	332.3	334.3	333.3
177.5°	333.3	332.5	332.5	334.1	332.5
180°	333.3	333.3	333.3	333.3	333.3



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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