

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: P853581

Luminaire Tested: SQ2-BBN-025U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853581
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-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

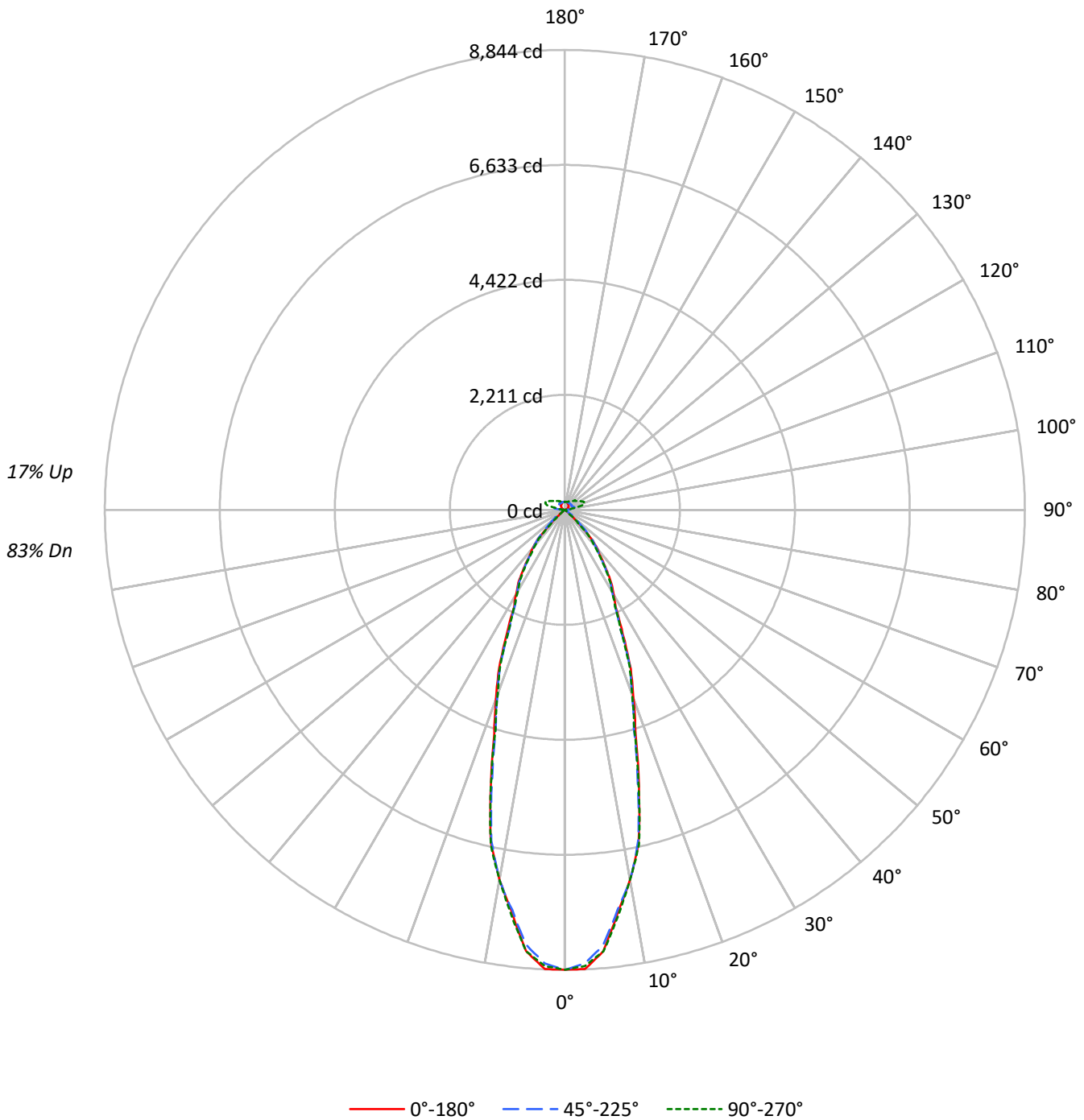
Lumens per Lamp: N/A
Luminaire Lumens: 5747.6 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.2
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	50	30	10
RCR																				
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83	83	83
1	109	106	104	101	105	103	100	98	95	94	92	89	88	87	83	82	81	78	78	78
2	103	98	94	91	100	95	92	89	89	87	84	84	82	80	79	77	76	73	73	73
3	98	92	86	82	95	89	84	81	84	80	77	79	76	74	75	73	71	69	69	69
4	93	85	80	75	90	83	78	74	79	75	71	75	72	69	71	69	66	64	64	64
5	88	80	74	70	85	78	72	68	74	70	66	71	67	64	68	65	62	60	60	60
6	84	75	69	65	81	73	68	64	70	65	62	67	63	60	64	61	59	57	57	57
7	80	70	64	60	77	69	63	59	66	61	58	63	60	57	61	58	55	54	54	54
8	76	66	60	56	74	65	60	56	63	58	55	60	56	53	58	55	52	51	51	51
9	72	63	57	53	70	62	56	53	59	55	52	57	53	50	55	52	49	48	48	48
10	69	60	54	50	67	59	53	50	57	52	49	55	51	48	53	50	47	46	46	46

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	142802	142802	142802
5°	138026	136321	138104
10°	118455	118534	118455
15°	91943	90479	91731
20°	66357	64988	64933
25°	47051	45177	45262
30°	35005	34114	33788
35°	27238	26546	25982
40°	20156	19652	18411
45°	10300	12629	8298
50°	2243	6965	1640
55°	628	2826	493
60°	103	565	52
65°	0	61	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: 12629 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	764.8	13.3
10°-20°	1507.8	26.2
20°-30°	1216.3	21.2
30°-40°	845.0	14.7
40°-50°	390.3	6.8
50°-60°	54.8	1.0
60°-70°	1.9	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	63.0	1.1
100°-110°	196.0	3.4
110°-120°	191.7	3.3
120°-130°	156.5	2.7
130°-140°	128.0	2.2
140°-150°	99.9	1.7
150°-160°	72.1	1.3
160°-170°	44.1	0.8
170°-180°	14.9	0.3
0°-30°	3488.9	60.7
0°-40°	4333.9	75.4
0°-60°	4779.0	83.1
0°-90°	4781.4	83.2
90°-120°	450.7	7.8
90°-150°	835.2	14.5
90°-180°	966.0	16.8
0°-180°	5747.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8844	8844	8844	8844	8844	
5°	8516	8471	8411	8515	8521	765
15°	5500	5571	5413	5489	5488	1514
25°	2641	2582	2536	2573	2541	1237
35°	1382	1382	1347	1323	1318	865
45°	451	538	553	502	363	364
55°	22	35	100	28	18	28
65°	0	0	2	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	25	116	43	28	10
105°	34	48	193	368	352	36
115°	61	72	157	323	378	60
125°	85	94	155	254	298	75
135°	102	113	154	219	246	79
145°	119	129	154	190	206	75
155°	137	141	155	170	176	63
165°	150	151	156	160	162	42
175°	156	156	156	157	156	15
180°	156	156	156	156	156	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8844.5	8844.5	8844.5	8844.5	8844.5
2.5°	8839.4	8807.0	8729.8	8799.4	8778.2
5°	8516.2	8471.0	8411.0	8514.8	8521.0
7.5°	7802.8	7817.4	7761.7	7876.1	7864.0
10°	7225.1	7236.1	7229.9	7267.2	7225.1
12.5°	6555.7	6599.0	6517.1	6574.9	6592.7
15°	5500.5	5570.7	5412.9	5489.4	5487.8
17.5°	4511.1	4503.9	4422.4	4436.7	4432.0
20°	3862.0	3851.1	3782.3	3771.3	3779.1
22.5°	3306.1	3287.7	3263.3	3235.8	3246.1
25°	2641.1	2581.9	2535.9	2573.4	2540.7
27.5°	2119.9	2119.0	2081.0	2085.3	2091.5
30°	1877.6	1866.7	1829.8	1831.0	1812.3
32.5°	1662.1	1669.9	1624.5	1615.5	1596.8
35°	1381.9	1381.9	1346.8	1322.8	1318.2
37.5°	1122.1	1119.3	1094.4	1060.3	1048.1
40°	956.3	948.5	932.4	890.6	873.5
42.5°	767.6	788.5	773.0	731.0	705.1
45°	451.1	538.3	553.1	502.1	363.4
47.5°	193.8	289.8	369.1	240.6	125.3
50°	89.3	164.1	277.3	118.3	65.3
52.5°	52.3	89.7	205.9	69.2	41.1
55°	22.3	34.8	100.4	28.4	17.5
57.5°	8.3	15.1	37.9	12.3	6.7
60°	3.2	6.3	17.5	4.7	1.6
62.5°	0.6	2.5	8.6	2.2	0.3
65°	0.0	0.0	1.6	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	10.7	36.5	12.0	9.7
95°	8.6	25.4	115.6	42.6	27.7
97.5°	15.7	33.0	191.4	119.2	75.1
100°	21.0	36.9	215.9	201.9	134.7
102.5°	26.4	41.5	211.3	288.4	226.4
105°	34.4	48.4	192.9	368.3	351.5
107.5°	42.4	55.5	175.4	374.5	393.0
110°	47.8	60.8	166.2	365.7	402.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.1	65.4	161.6	349.9	396.0
115°	61.1	72.3	156.6	323.1	378.2
117.5°	69.0	79.2	154.5	297.6	354.0
120°	73.5	83.8	153.8	283.0	337.2
122.5°	78.1	88.4	154.5	270.7	320.4
125°	85.0	94.3	154.7	254.1	298.0
127.5°	90.5	100.1	154.7	241.7	279.1
130°	93.6	103.9	154.7	234.8	268.4
132.5°	97.4	107.7	154.0	228.6	260.0
135°	102.2	113.4	153.8	219.3	246.4
137.5°	107.7	118.0	153.8	210.1	234.8
140°	110.8	121.1	153.8	204.0	226.4
142.5°	114.6	124.1	153.8	197.8	218.0
145°	119.4	128.7	153.8	189.5	206.3
147.5°	125.1	133.2	154.7	181.8	195.0
150°	128.9	135.5	154.7	177.9	188.2
152.5°	132.0	137.8	154.7	174.0	182.8
155°	136.6	141.3	154.7	170.1	175.8
157.5°	141.2	144.7	154.7	166.7	170.2
160°	144.2	147.0	154.7	164.4	167.2
162.5°	146.5	148.6	154.7	162.8	164.9
165°	150.0	150.9	155.7	160.5	162.4
167.5°	152.1	152.2	154.7	159.2	160.1
170°	152.8	153.8	154.7	157.6	158.6
172.5°	154.4	154.5	155.5	156.8	157.0
175°	155.7	155.7	155.7	156.6	155.7
177.5°	155.7	155.7	155.7	155.7	155.7
180°	155.7	155.7	155.7	155.7	155.7

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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