

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: P853627

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853627
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-100U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

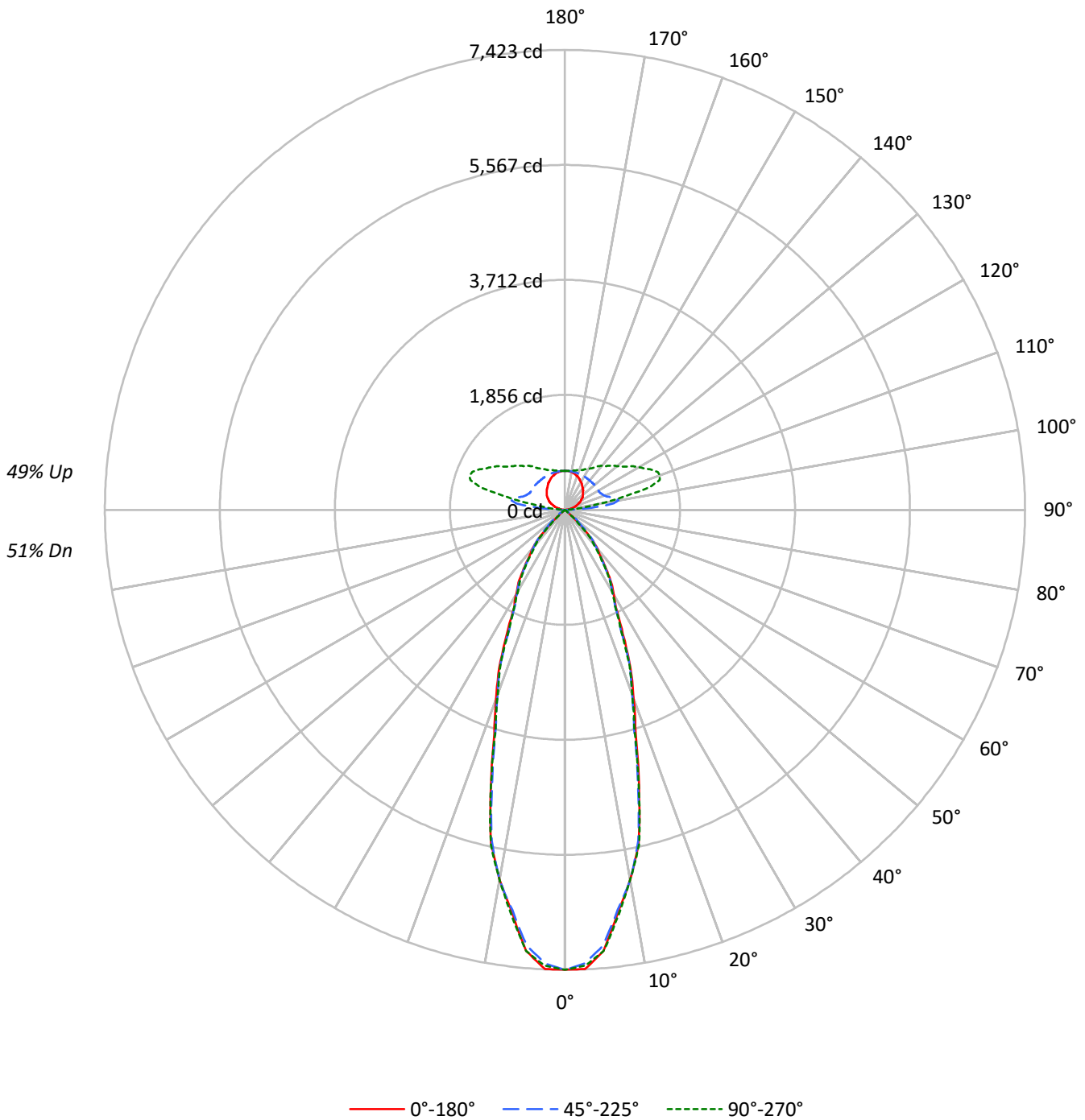
Lumens per Lamp: N/A
Luminaire Lumens: 7941.0 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.7
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°	119844	119844	119844
5°	115835	114406	115902
10°	99412	99478	99412
15°	77162	75931	76983
20°	55689	54539	54495
25°	39487	37914	37985
30°	29377	28629	28355
35°	22858	22279	21804
40°	16916	16493	15449
45°	8645	10599	6964
50°	1881	5848	1376
55°	526	2373	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: 10599 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	641.8	8.1
10°-20°	1265.4	15.9
20°-30°	1020.8	12.9
30°-40°	709.1	8.9
40°-50°	327.6	4.1
50°-60°	46.0	0.6
60°-70°	1.6	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	263.6	3.3
100°-110°	797.1	10.0
110°-120°	778.2	9.8
120°-130°	635.9	8.0
130°-140°	519.0	6.5
140°-150°	404.0	5.1
150°-160°	291.3	3.7
160°-170°	178.3	2.2
170°-180°	60.2	0.8
0°-30°	2928.0	36.9
0°-40°	3637.1	45.8
0°-60°	4010.7	50.5
0°-90°	4013.7	50.5
90°-120°	1838.8	23.2
90°-150°	3397.8	42.8
90°-180°	3928.0	49.5
0°-180°	7941.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7423	7423	7423	7423	7423	
5°	7147	7109	7059	7146	7151	642
15°	4616	4675	4543	4607	4606	1271
25°	2216	2167	2128	2160	2132	1038
35°	1160	1160	1130	1110	1106	726
45°	379	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	2	12	7	6	2
95°	33	103	497	184	116	39
105°	139	195	783	1486	1413	146
115°	247	294	633	1310	1539	244
125°	345	382	624	1034	1218	306
135°	413	457	620	892	1004	320
145°	482	518	620	767	839	302
155°	550	568	624	688	714	253
165°	601	608	627	651	659	169
175°	629	629	630	635	633	60
180°	631	631	631	631	631	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7422.6	7422.6	7422.6	7422.6	7422.6
2.5°	7418.3	7391.1	7326.3	7384.7	7367.0
5°	7147.0	7109.1	7058.8	7145.8	7151.1
7.5°	6548.3	6560.6	6513.8	6609.9	6599.7
10°	6063.6	6072.7	6067.6	6098.9	6063.6
12.5°	5501.7	5538.1	5469.4	5517.9	5532.8
15°	4616.2	4675.1	4542.6	4606.8	4605.5
17.5°	3785.8	3779.8	3711.4	3723.4	3719.5
20°	3241.1	3232.0	3174.2	3165.0	3171.6
22.5°	2774.5	2759.1	2738.7	2715.6	2724.3
25°	2216.5	2166.8	2128.2	2159.7	2132.2
27.5°	1779.1	1778.3	1746.4	1750.0	1755.3
30°	1575.7	1566.6	1535.6	1536.6	1520.9
32.5°	1394.9	1401.4	1363.3	1355.7	1340.1
35°	1159.7	1159.7	1130.3	1110.2	1106.2
37.5°	941.7	939.3	918.4	889.8	879.6
40°	802.6	796.0	782.5	747.4	733.0
42.5°	644.2	661.7	648.8	613.5	591.8
45°	378.6	451.8	464.2	421.4	305.0
47.5°	162.7	243.2	309.8	201.9	105.1
50°	74.9	137.7	232.8	99.3	54.8
52.5°	43.9	75.3	172.8	58.1	34.5
55°	18.7	29.2	84.3	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	0.4	2.4	1.4	1.2
90°	0.0	1.9	11.9	6.9	5.9
92.5°	11.1	44.8	160.9	53.4	38.4
95°	32.7	103.4	497.3	183.7	115.9
97.5°	63.2	131.6	783.8	518.7	315.8
100°	82.2	149.1	875.8	846.7	568.7
102.5°	103.6	168.1	856.8	1187.5	946.7
105°	138.7	194.9	782.7	1486.4	1412.7
107.5°	172.0	225.6	711.3	1515.9	1601.2
110°	194.2	245.5	675.7	1478.7	1633.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	215.6	265.4	654.3	1416.2	1612.3
115°	246.7	294.1	633.1	1309.9	1538.6
117.5°	277.6	322.5	625.5	1210.4	1444.4
120°	298.2	340.8	623.1	1152.3	1377.1
122.5°	317.2	357.5	623.1	1101.2	1308.9
125°	344.8	382.5	624.1	1034.5	1217.6
127.5°	367.2	406.3	623.1	984.1	1140.3
130°	381.4	422.1	623.1	955.3	1096.7
132.5°	394.1	435.6	622.4	928.9	1059.5
135°	413.1	456.7	620.2	892.2	1003.6
137.5°	434.3	475.8	620.2	853.0	956.2
140°	447.8	488.5	620.2	827.5	925.3
142.5°	461.3	500.4	619.4	804.2	889.6
145°	482.5	518.3	620.2	767.4	839.1
147.5°	503.7	534.1	621.4	737.1	792.2
150°	517.1	545.2	622.2	720.3	766.8
152.5°	529.8	554.8	622.9	705.8	743.8
155°	549.8	568.2	624.1	688.1	714.3
157.5°	567.3	582.2	625.3	675.1	693.3
160°	577.6	590.2	626.1	667.0	680.6
162.5°	587.9	597.4	626.9	659.9	671.1
165°	601.4	608.1	627.1	651.1	658.8
167.5°	612.8	616.3	628.3	644.2	647.5
170°	619.2	621.1	629.1	641.0	642.0
172.5°	623.1	624.3	629.1	637.8	638.0
175°	629.1	629.1	630.1	635.0	633.1
177.5°	631.9	631.1	630.3	632.6	631.1
180°	631.1	631.1	631.1	631.1	631.1



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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