

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: P853645

Luminaire Tested: SQ2-BBN-150U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853645
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-150U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

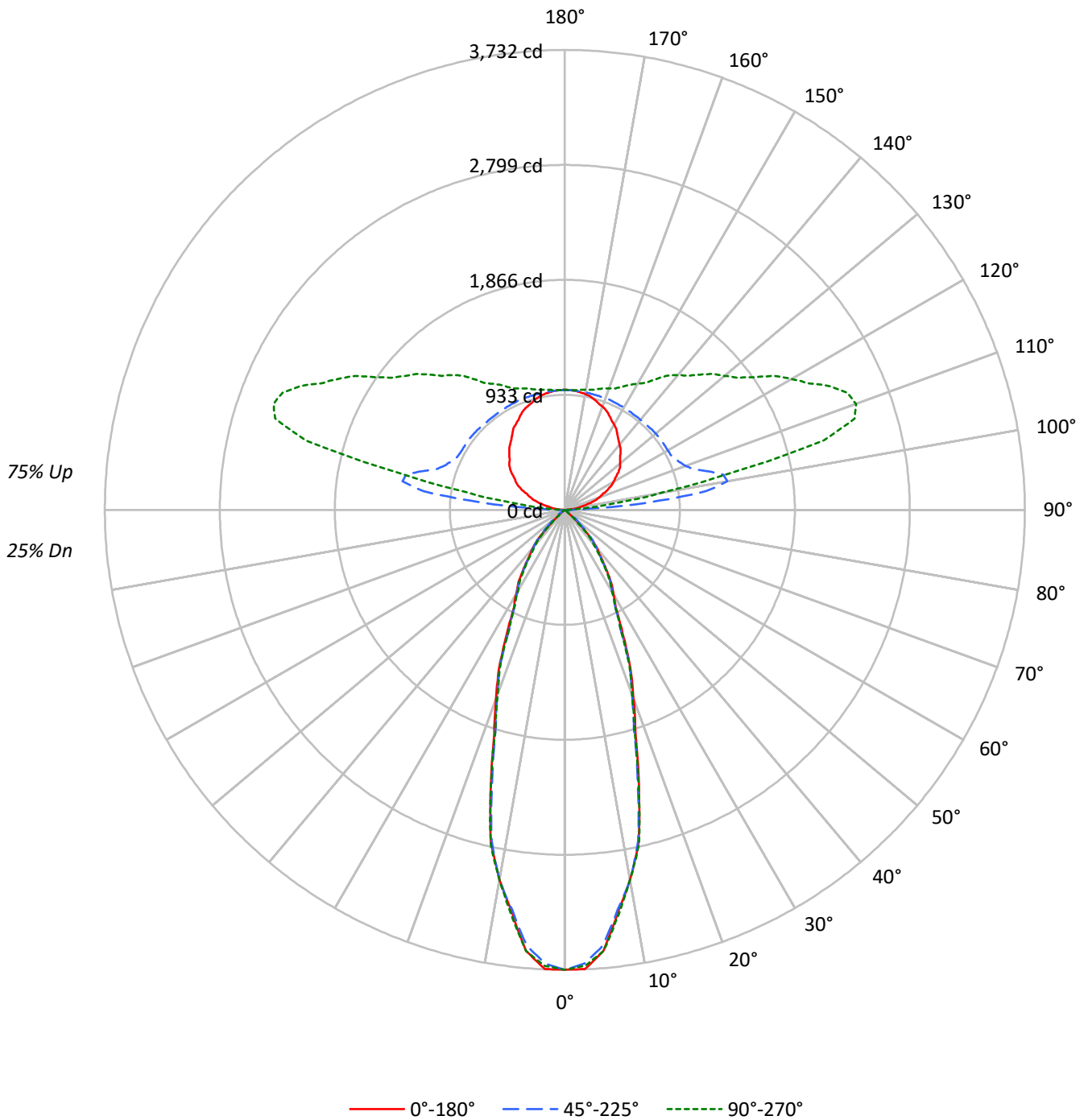
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8023.4 lumens
Efficiency: N/A
Efficacy: 107.4 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-Indirect

Input Watts (W): 74.7
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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	33	33	33	25
1	93	90	86	84	83	80	78	75	63	61	59	46	45	44	31	31	30	24
2	86	80	75	71	77	72	68	64	57	54	51	42	41	39	29	29	28	22
3	80	72	66	61	71	65	59	55	51	48	45	39	37	35	27	26	26	21
4	74	65	58	53	66	58	53	48	47	43	40	36	34	32	26	25	24	19
5	68	58	52	46	61	53	47	43	43	39	36	33	31	29	24	23	22	18
6	64	53	46	41	57	48	42	38	39	35	32	31	28	26	23	21	20	17
7	59	49	42	37	53	44	38	34	36	32	29	29	26	24	22	20	19	16
8	55	45	38	33	50	41	35	31	34	29	27	27	24	22	20	19	18	15
9	52	41	35	30	47	38	32	28	31	27	24	25	22	21	19	18	17	15
10	49	38	32	28	44	35	30	26	29	25	23	24	21	19	18	17	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	60253	60253	60253
5°	58238	57519	58271
10°	49982	50014	49982
15°	38795	38176	38705
20°	27998	27421	27398
25°	19853	19062	19098
30°	14769	14395	14257
35°	11493	11201	10963
40°	8505	8292	7767
45°	4345	5329	3500
50°	947	2939	693
55°	265	1194	208
60°	42	239	23
65°	0	27	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: 5329 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.7	4.0
10°-20°	636.2	7.9
20°-30°	513.2	6.4
30°-40°	356.5	4.4
40°-50°	164.7	2.1
50°-60°	23.1	0.3
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	370.7	4.6
100°-110°	1213.9	15.1
110°-120°	1200.1	15.0
120°-130°	981.0	12.2
130°-140°	800.6	10.0
140°-150°	623.0	7.8
150°-160°	448.6	5.6
160°-170°	274.4	3.4
170°-180°	92.7	1.2
0°-30°	1472.1	18.3
0°-40°	1828.6	22.8
0°-60°	2016.5	25.1
0°-90°	2018.7	25.2
90°-120°	2784.7	34.7
90°-150°	5189.3	64.7
90°-180°	6005.0	74.8
0°-180°	8023.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3732	3732	3732	3732	3732	
5°	3593	3574	3549	3593	3595	323
15°	2321	2350	2284	2316	2316	639
25°	1114	1089	1070	1086	1072	522
35°	583	583	568	558	556	365
45°	190	227	233	212	153	154
55°	9	15	42	12	7	12
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	52	151	674	240	156	59
105°	211	301	1205	2289	2175	222
115°	380	454	979	2023	2375	375
125°	529	590	965	1595	1874	471
135°	637	704	957	1376	1551	493
145°	745	800	955	1184	1297	467
155°	849	877	961	1059	1100	391
165°	927	936	965	1002	1013	261
175°	969	969	970	977	975	92
180°	973	973	973	973	973	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3731.8	3731.8	3731.8	3731.8	3731.8
2.5°	3729.7	3716.0	3683.4	3712.8	3703.9
5°	3593.3	3574.2	3548.9	3592.7	3595.3
7.5°	3292.3	3298.5	3274.9	3323.2	3318.1
10°	3048.6	3053.2	3050.6	3066.3	3048.6
12.5°	2766.1	2784.4	2749.8	2774.2	2781.7
15°	2320.9	2350.5	2283.9	2316.2	2315.5
17.5°	1903.4	1900.4	1866.0	1872.0	1870.0
20°	1629.5	1624.9	1595.9	1591.3	1594.6
22.5°	1395.0	1387.2	1376.9	1365.3	1369.7
25°	1114.4	1089.4	1070.0	1085.8	1072.0
27.5°	894.5	894.1	878.0	879.9	882.5
30°	792.2	787.6	772.1	772.6	764.7
32.5°	701.3	704.6	685.4	681.6	673.7
35°	583.1	583.1	568.3	558.2	556.2
37.5°	473.5	472.3	461.8	447.4	442.3
40°	403.5	400.2	393.4	375.8	368.5
42.5°	323.9	332.7	326.2	308.4	297.5
45°	190.3	227.1	233.4	211.9	153.3
47.5°	81.8	122.3	155.8	101.5	52.9
50°	37.7	69.2	117.0	49.9	27.6
52.5°	22.1	37.8	86.9	29.2	17.4
55°	9.4	14.7	42.4	12.0	7.4
57.5°	3.5	6.4	16.0	5.2	2.8
60°	1.3	2.7	7.4	2.0	0.7
62.5°	0.3	1.1	3.6	0.9	0.1
65°	0.0	0.0	0.7	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°	0.2	0.6	1.6	1.4	1.6
90°	1.0	3.0	8.0	7.0	8.0
92.5°	17.0	62.0	190.4	61.9	49.6
95°	52.0	150.7	674.0	240.1	156.0
97.5°	94.4	198.8	1156.3	699.5	433.6
100°	124.0	223.7	1337.9	1194.8	791.9
102.5°	157.6	255.0	1317.9	1760.5	1364.7
105°	211.0	300.9	1204.9	2289.2	2174.8
107.5°	263.6	346.1	1094.7	2338.7	2464.4
110°	298.0	378.2	1041.9	2281.1	2514.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	330.8	408.6	1009.9	2181.0	2480.4
115°	380.0	454.3	978.9	2022.9	2374.8
117.5°	427.8	497.2	967.1	1867.4	2224.8
120°	459.0	524.5	963.9	1776.8	2124.8
122.5°	487.0	550.9	963.9	1698.6	2021.7
125°	529.0	589.6	964.9	1595.2	1873.9
127.5°	564.6	626.3	963.7	1519.0	1761.5
130°	587.0	649.5	962.9	1472.9	1691.9
132.5°	607.0	671.1	960.5	1433.2	1631.9
135°	637.0	704.4	956.9	1375.9	1550.9
137.5°	668.6	735.4	954.7	1316.1	1474.3
140°	690.9	755.5	953.9	1278.3	1427.9
142.5°	713.3	774.0	953.9	1238.0	1373.5
145°	744.9	799.7	954.9	1183.5	1296.9
147.5°	778.1	823.7	956.3	1136.1	1221.7
150°	798.9	839.0	957.9	1108.6	1180.9
152.5°	819.7	855.1	958.7	1085.9	1145.7
155°	848.9	877.3	960.9	1058.9	1099.9
157.5°	875.1	895.7	963.1	1037.6	1067.3
160°	891.9	908.6	963.9	1025.5	1048.9
162.5°	906.3	919.8	963.9	1015.7	1032.9
165°	926.9	935.7	964.9	1002.2	1012.9
167.5°	944.3	948.6	966.1	991.7	997.5
170°	953.9	955.9	966.9	986.0	987.9
172.5°	961.1	962.3	969.3	981.9	982.3
175°	968.9	968.9	969.9	976.9	974.9
177.5°	972.9	972.1	971.3	976.1	972.9
180°	972.9	972.9	972.9	972.9	972.9



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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