

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: P853655

Luminaire Tested: SQ2-BBN-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853655
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-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

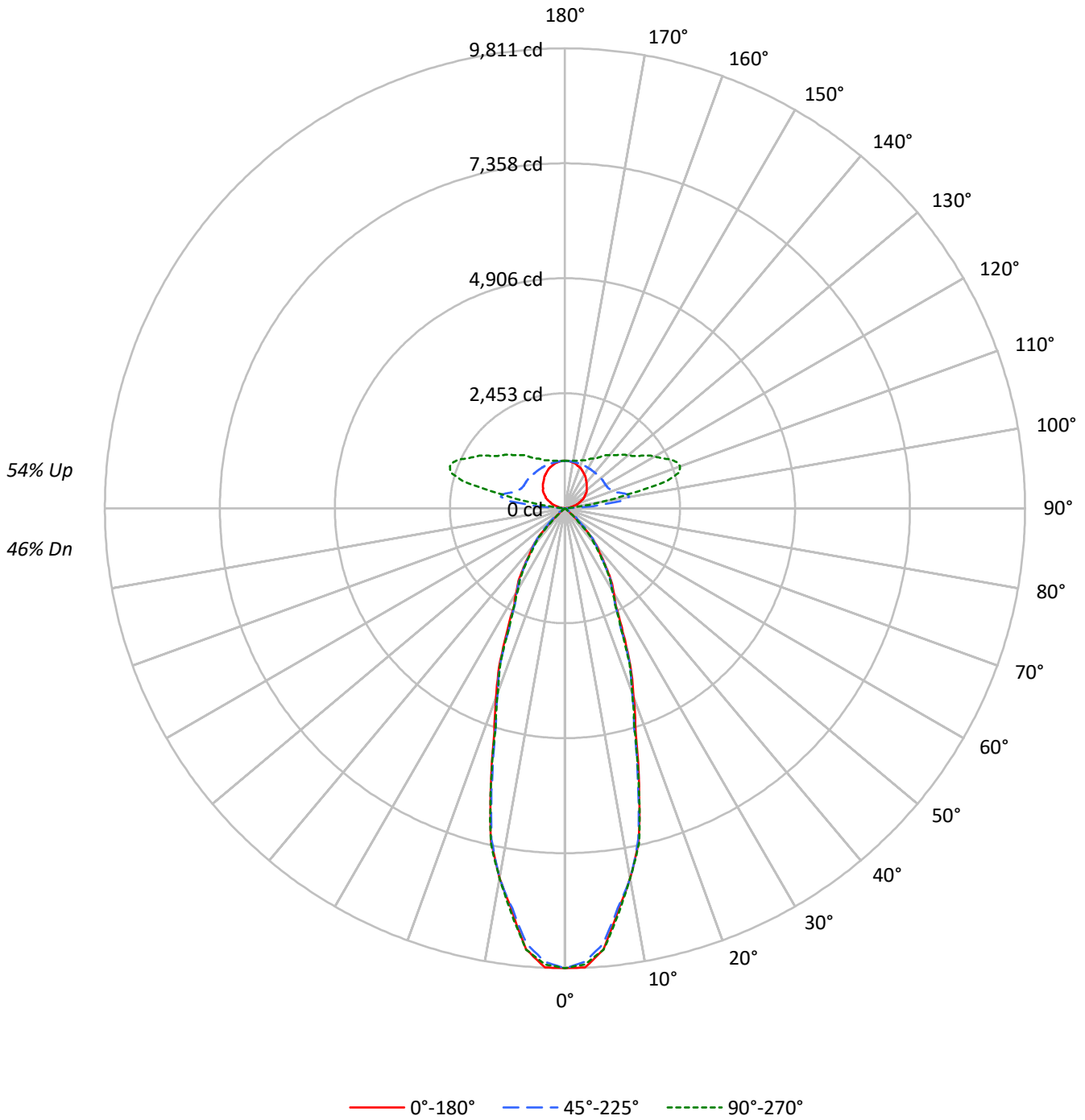
Lumens per Lamp: N/A
Luminaire Lumens: 11539.9 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.9
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	99	96	93	90	91	88	86	83	74	73	71	62	61	60	50	49	49	43
2	92	87	82	78	85	80	76	73	68	66	63	57	55	54	47	46	45	40
3	86	79	73	68	80	73	68	64	63	59	57	53	51	49	44	43	42	38
4	81	72	66	61	75	67	62	58	58	54	51	50	47	45	42	40	39	36
5	75	66	60	55	70	62	56	52	54	50	47	47	44	41	40	38	36	33
6	71	61	54	50	66	57	51	47	50	46	43	44	41	38	38	36	34	31
7	67	56	50	45	62	53	47	43	47	43	39	41	38	36	36	34	32	30
8	63	52	46	42	58	50	44	40	44	40	37	39	36	33	34	32	30	28
9	59	49	43	38	55	46	41	37	41	37	34	37	34	31	32	30	28	27
10	56	46	40	36	52	43	38	34	39	35	32	35	32	29	31	29	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	158413	158413	158413
5°	153114	151224	153202
10°	131405	131492	131405
15°	101994	100369	101758
20°	73611	72092	72031
25°	52194	50115	50210
30°	38833	37843	37481
35°	30216	29449	28821
40°	22360	21802	20421
45°	11426	14008	9204
50°	2487	7729	1821
55°	698	3136	546
60°	113	626	58
65°	0	69	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: 14008 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	848.4	7.4
10°-20°	1672.6	14.5
20°-30°	1349.3	11.7
30°-40°	937.3	8.1
40°-50°	433.0	3.8
50°-60°	60.8	0.5
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	384.9	3.3
100°-110°	1260.4	10.9
110°-120°	1246.1	10.8
120°-130°	1018.6	8.8
130°-140°	831.2	7.2
140°-150°	646.9	5.6
150°-160°	465.8	4.0
160°-170°	285.0	2.5
170°-180°	96.3	0.8
0°-30°	3870.3	33.5
0°-40°	4807.7	41.7
0°-60°	5301.5	45.9
0°-90°	5305.0	46.0
90°-120°	2891.4	25.1
90°-150°	5388.2	46.7
90°-180°	6235.0	54.0
0°-180°	11539.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9811	9811	9811	9811	9811	
5°	9447	9397	9330	9446	9452	849
15°	6102	6180	6005	6089	6088	1680
25°	2930	2864	2813	2855	2818	1372
35°	1533	1533	1494	1467	1462	959
45°	500	597	614	557	403	404
55°	25	39	111	32	19	31
65°	0	0	2	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9811.4	9811.4	9811.4	9811.4	9811.4
2.5°	9805.7	9769.8	9684.1	9761.3	9737.8
5°	9447.1	9397.0	9330.5	9445.5	9452.5
7.5°	8655.7	8672.0	8610.1	8737.1	8723.6
10°	8015.0	8027.1	8020.3	8061.6	8015.0
12.5°	7272.3	7320.4	7229.6	7293.7	7313.4
15°	6101.8	6179.6	6004.6	6089.4	6087.7
17.5°	5004.2	4996.2	4905.9	4921.7	4916.5
20°	4284.2	4272.1	4195.8	4183.6	4192.2
22.5°	3667.5	3647.1	3620.1	3589.6	3601.0
25°	2929.8	2864.1	2813.1	2854.7	2818.4
27.5°	2351.6	2350.6	2308.5	2313.2	2320.1
30°	2082.9	2070.8	2029.8	2031.1	2010.4
32.5°	1843.8	1852.5	1802.1	1792.1	1771.3
35°	1533.0	1533.0	1494.1	1467.4	1462.2
37.5°	1244.8	1241.7	1214.0	1176.2	1162.7
40°	1060.9	1052.2	1034.4	988.0	968.9
42.5°	851.5	874.7	857.5	810.9	782.2
45°	500.4	597.2	613.5	557.0	403.1
47.5°	215.0	321.5	409.5	266.9	139.0
50°	99.0	182.0	307.7	131.3	72.5
52.5°	58.0	99.5	228.4	76.7	45.6
55°	24.8	38.6	111.4	31.6	19.4
57.5°	9.2	16.8	42.1	13.7	7.4
60°	3.5	7.0	19.4	5.2	1.8
62.5°	0.7	2.8	9.5	2.4	0.4
65°	0.0	0.0	1.8	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	1.7	1.5	1.7
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2



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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