

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: P853606

Luminaire Tested: SQ2-BBN-075U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853606
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-075U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

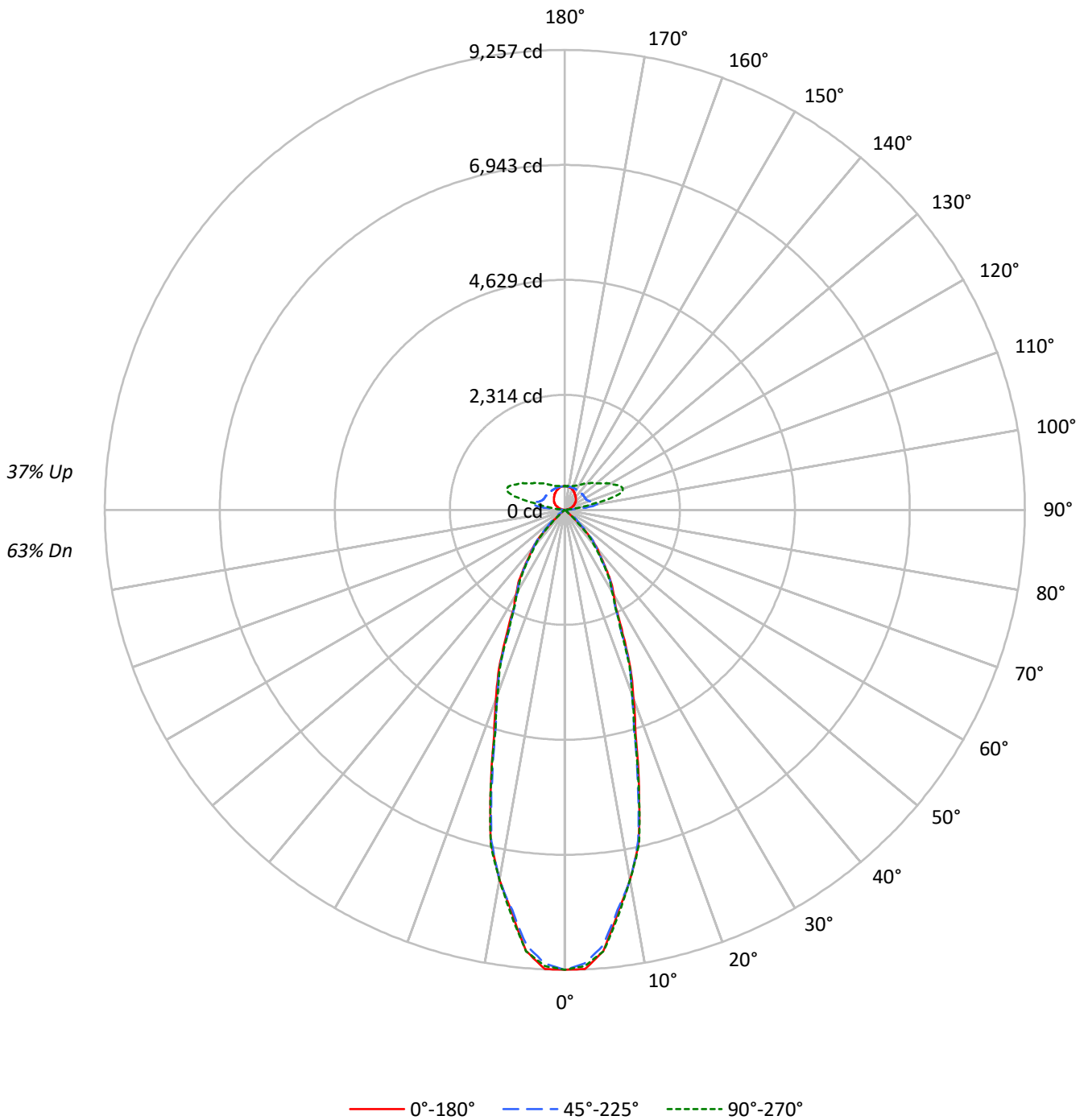
Lumens per Lamp: N/A
Luminaire Lumens: 7957.3 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 73.1
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	0	
RCR																						
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63				
1	104	101	98	95	97	95	92	90	84	82	81	74	73	72	65	64	63	59				
2	97	92	88	84	92	87	83	80	78	75	73	69	67	66	62	60	59	55				
3	92	85	79	75	86	80	76	72	72	69	66	65	63	60	58	57	55	52				
4	86	78	72	68	81	74	69	65	68	64	60	61	58	56	55	53	51	49				
5	81	72	66	61	77	69	64	60	63	59	56	58	54	52	52	50	48	46				
6	77	67	61	56	73	64	59	55	59	55	52	54	51	48	50	47	45	43				
7	72	63	56	52	69	60	55	51	56	51	48	51	48	45	47	45	43	41				
8	69	59	53	48	65	57	51	47	52	48	45	49	45	42	45	42	40	38				
9	65	55	49	45	62	53	48	44	50	45	42	46	43	40	43	40	38	36				
10	62	52	46	42	59	50	45	41	47	43	40	44	40	38	41	38	36	34				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	149465	149465	149465
5°	144466	142681	144548
10°	123983	124065	123983
15°	96234	94699	96010
20°	69453	68020	67964
25°	49246	47284	47374
30°	36638	35706	35363
35°	28509	27786	27194
40°	21098	20569	19268
45°	10780	13218	8686
50°	2346	7292	1718
55°	659	2959	518
60°	107	594	55
65°	0	65	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: 13218 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	800.5	10.1
10°-20°	1578.2	19.8
20°-30°	1273.1	16.0
30°-40°	884.4	11.1
40°-50°	408.6	5.1
50°-60°	57.4	0.7
60°-70°	2.0	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	180.4	2.3
100°-110°	597.9	7.5
110°-120°	593.4	7.5
120°-130°	483.3	6.1
130°-140°	392.8	4.9
140°-150°	305.1	3.8
150°-160°	219.8	2.8
160°-170°	134.6	1.7
170°-180°	45.5	0.6
0°-30°	3651.7	45.9
0°-40°	4536.1	57.0
0°-60°	5002.0	62.9
0°-90°	5004.6	62.9
90°-120°	1371.7	17.2
90°-150°	2552.9	32.1
90°-180°	2953.0	37.1
0°-180°	7957.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9257	9257	9257	9257	9257	
5°	8914	8866	8803	8912	8919	801
15°	5757	5831	5665	5746	5744	1585
25°	2764	2702	2654	2694	2659	1294
35°	1446	1446	1410	1385	1380	905
45°	472	564	579	526	380	381
55°	23	36	105	30	18	30
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	4	4	1
95°	26	76	327	117	78	29
105°	105	149	598	1129	1056	110
115°	187	223	482	1003	1173	184
125°	261	290	473	788	929	232
135°	312	344	469	676	763	241
145°	362	389	468	582	637	227
155°	414	428	471	520	539	191
165°	454	459	473	492	497	128
175°	475	475	476	479	478	45
180°	477	477	477	477	477	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9257.2	9257.2	9257.2	9257.2	9257.2
2.5°	9251.9	9217.9	9137.1	9210.0	9187.8
5°	8913.5	8866.2	8803.4	8912.0	8918.6
7.5°	8166.8	8182.2	8123.8	8243.6	8230.9
10°	7562.3	7573.7	7567.3	7606.3	7562.3
12.5°	6861.6	6906.9	6821.2	6881.7	6900.3
15°	5757.2	5830.6	5665.4	5745.5	5743.8
17.5°	4721.5	4714.0	4628.8	4643.7	4638.8
20°	4042.2	4030.8	3958.8	3947.3	3955.5
22.5°	3460.3	3441.1	3415.6	3386.8	3397.6
25°	2764.3	2702.3	2654.2	2693.5	2659.2
27.5°	2218.8	2217.8	2178.1	2182.6	2189.1
30°	1965.2	1953.8	1915.2	1916.4	1896.8
32.5°	1739.7	1747.8	1700.3	1690.8	1671.3
35°	1446.4	1446.4	1409.7	1384.6	1379.7
37.5°	1174.5	1171.5	1145.4	1109.8	1097.1
40°	1001.0	992.8	975.9	932.2	914.2
42.5°	803.4	825.3	809.1	765.1	738.0
45°	472.1	563.5	578.9	525.5	380.4
47.5°	202.9	303.3	386.4	251.8	131.1
50°	93.4	171.7	290.3	123.9	68.4
52.5°	54.7	93.9	215.5	72.4	43.0
55°	23.4	36.4	105.1	29.8	18.4
57.5°	8.7	15.9	39.7	12.9	7.0
60°	3.3	6.6	18.4	4.9	1.7
62.5°	0.7	2.6	9.0	2.3	0.3
65°	0.0	0.0	1.7	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°	0.0	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.0	3.9	3.9
92.5°	7.9	30.5	89.9	29.1	24.5
95°	25.7	75.9	326.8	116.6	78.0
97.5°	47.2	99.7	570.5	332.7	210.3
100°	62.2	112.4	660.6	567.4	376.2
102.5°	78.8	127.5	655.0	867.1	655.0
105°	104.7	149.1	598.4	1128.9	1055.5
107.5°	131.1	170.7	544.1	1155.5	1211.3
110°	146.1	185.7	516.4	1129.2	1242.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	161.9	200.7	499.8	1082.5	1226.4
115°	186.6	223.3	481.9	1003.1	1173.0
117.5°	211.1	243.7	475.3	927.3	1105.5
120°	226.1	258.0	473.0	879.8	1052.6
122.5°	239.5	270.6	473.0	840.7	1000.4
125°	260.7	289.6	473.0	788.2	929.1
127.5°	278.1	306.4	471.8	748.4	868.9
130°	288.3	318.3	471.0	725.2	833.4
132.5°	297.8	328.5	470.2	706.0	803.3
135°	312.0	343.9	469.0	676.4	763.3
137.5°	327.4	358.1	467.8	647.7	724.4
140°	337.7	367.6	467.0	628.6	699.1
142.5°	347.2	376.3	467.8	609.5	672.2
145°	362.4	389.4	468.0	581.8	636.9
147.5°	378.8	401.4	468.2	558.4	599.4
150°	389.0	409.3	469.0	544.8	579.6
152.5°	398.5	418.0	469.8	533.6	561.4
155°	413.7	428.2	471.0	519.8	539.1
157.5°	428.5	439.7	472.2	510.0	523.7
160°	436.4	446.1	473.0	502.8	513.4
162.5°	444.3	451.7	473.0	498.0	506.3
165°	454.2	459.0	473.0	491.8	496.7
167.5°	463.3	465.8	474.0	486.3	488.8
170°	468.0	469.0	474.0	483.8	484.8
172.5°	471.2	472.2	474.7	481.5	481.7
175°	474.9	474.9	475.9	478.9	477.9
177.5°	476.9	476.9	476.1	477.7	476.1
180°	476.9	476.9	476.9	476.9	476.9

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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