

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: P853607

Luminaire Tested: SQ2-BBN-075U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853607
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-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

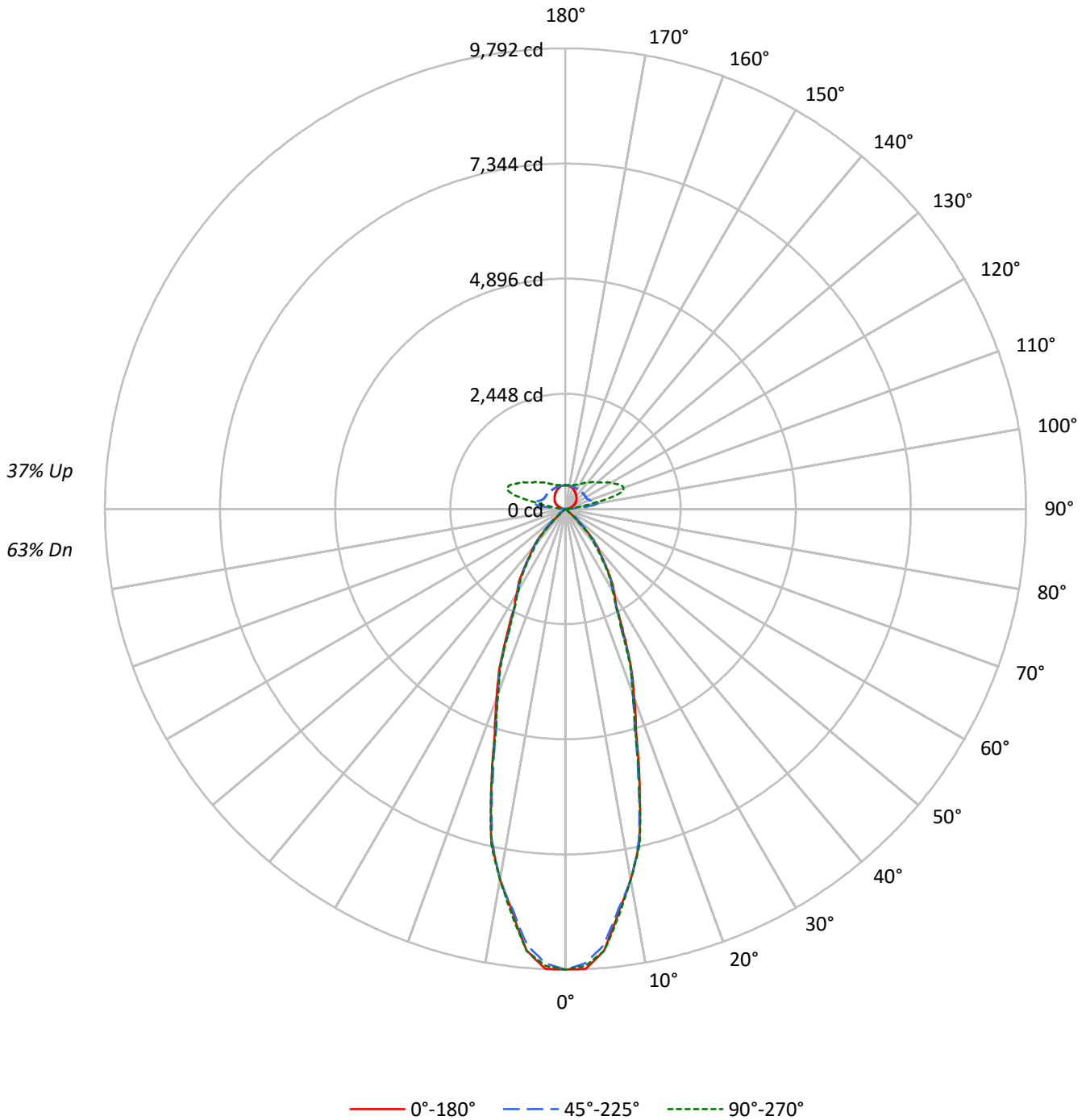
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8416.9 lumens
Efficiency: N/A
Efficacy: 115.1 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	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°	158100	158100	158100
5°	152813	150924	152897
10°	131145	131231	131145
15°	101793	100170	101556
20°	73465	71950	71890
25°	52091	50016	50110
30°	38754	37768	37407
35°	30155	29390	28765
40°	22316	21758	20381
45°	11403	13981	9186
50°	2482	7711	1819
55°	695	3130	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: 13981 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	846.7	10.1
10°-20°	1669.3	19.8
20°-30°	1346.6	16.0
30°-40°	935.5	11.1
40°-50°	432.2	5.1
50°-60°	60.7	0.7
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	190.8	2.3
100°-110°	632.4	7.5
110°-120°	627.7	7.5
120°-130°	511.3	6.1
130°-140°	415.5	4.9
140°-150°	322.7	3.8
150°-160°	232.5	2.8
160°-170°	142.4	1.7
170°-180°	48.1	0.6
0°-30°	3862.7	45.9
0°-40°	4798.1	57.0
0°-60°	5291.0	62.9
0°-90°	5293.7	62.9
90°-120°	1450.9	17.2
90°-150°	2700.4	32.1
90°-180°	3123.0	37.1
0°-180°	8416.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9792	9792	9792	9792	9792	
5°	9428	9378	9312	9427	9434	847
15°	6090	6167	5993	6077	6076	1676
25°	2924	2858	2808	2849	2813	1369
35°	1530	1530	1491	1464	1459	957
45°	499	596	612	556	402	403
55°	25	38	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°	0	1	3	4	4	1
95°	27	80	346	123	82	31
105°	111	158	633	1194	1116	117
115°	197	236	510	1061	1241	195
125°	276	306	500	834	983	245
135°	330	364	496	715	807	255
145°	383	412	495	616	674	240
155°	438	453	498	550	570	202
165°	480	486	500	520	525	135
175°	502	502	503	506	506	48
180°	504	504	504	504	504	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9792.0	9792.0	9792.0	9792.0	9792.0
2.5°	9786.3	9750.4	9664.9	9742.0	9718.6
5°	9428.5	9378.4	9312.0	9426.8	9433.7
7.5°	8638.6	8654.8	8593.1	8719.8	8706.4
10°	7999.1	8011.2	8004.4	8045.7	7999.1
12.5°	7258.0	7305.9	7215.2	7279.2	7298.9
15°	6089.8	6167.4	5992.7	6077.4	6075.6
17.5°	4994.3	4986.3	4896.2	4911.9	4906.7
20°	4275.7	4263.6	4187.5	4175.3	4184.0
22.5°	3660.2	3639.9	3612.9	3582.5	3593.9
25°	2924.0	2858.4	2807.5	2849.1	2812.8
27.5°	2347.0	2345.9	2303.9	2308.7	2315.6
30°	2078.7	2066.7	2025.8	2027.1	2006.4
32.5°	1840.2	1848.8	1798.5	1788.5	1767.8
35°	1529.9	1529.9	1491.1	1464.5	1459.4
37.5°	1242.3	1239.2	1211.6	1173.9	1160.4
40°	1058.8	1050.2	1032.3	986.0	967.0
42.5°	849.8	873.0	855.8	809.3	780.7
45°	499.4	596.0	612.3	555.9	402.3
47.5°	214.6	320.9	408.7	266.4	138.7
50°	98.8	181.6	307.0	131.0	72.4
52.5°	57.9	99.3	228.0	76.6	45.5
55°	24.7	38.5	111.2	31.5	19.4
57.5°	9.2	16.8	42.0	13.6	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°	0.0	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.3	95.0	30.8	25.9
95°	27.2	80.3	345.7	123.4	82.5
97.5°	49.9	105.5	603.5	352.0	222.5
100°	65.8	118.9	698.7	600.1	397.9
102.5°	83.3	134.8	692.9	917.1	692.9
105°	110.7	157.7	632.9	1194.1	1116.5
107.5°	138.7	180.6	575.5	1222.3	1281.3
110°	154.6	196.4	546.2	1194.4	1313.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.3	212.3	528.7	1145.0	1297.2
115°	197.4	236.2	509.7	1061.1	1240.8
117.5°	223.3	257.8	502.8	980.8	1169.4
120°	239.2	272.9	500.3	930.6	1113.4
122.5°	253.4	286.3	500.3	889.3	1058.2
125°	275.7	306.4	500.3	833.7	982.8
127.5°	294.1	324.1	499.0	791.7	919.1
130°	305.0	336.6	498.2	767.1	881.5
132.5°	315.0	347.5	497.4	746.8	849.8
135°	330.0	363.7	496.1	715.4	807.4
137.5°	346.3	378.8	494.9	685.1	766.2
140°	357.2	388.9	494.0	664.9	739.5
142.5°	367.2	398.1	494.9	644.7	711.1
145°	383.3	411.9	495.1	615.5	673.7
147.5°	400.6	424.5	495.3	590.7	634.0
150°	411.5	433.0	496.1	576.3	613.1
152.5°	421.5	442.2	496.9	564.5	593.9
155°	437.6	452.9	498.2	549.8	570.3
157.5°	453.3	465.1	499.5	539.5	554.0
160°	461.6	471.9	500.3	531.9	543.1
162.5°	470.0	477.8	500.3	526.8	535.6
165°	480.4	485.5	500.3	520.2	525.4
167.5°	490.1	492.7	501.3	514.3	517.0
170°	495.1	496.1	501.3	511.8	512.8
172.5°	498.4	499.4	502.2	509.3	509.5
175°	502.4	502.4	503.4	506.5	505.5
177.5°	504.5	504.5	503.6	505.3	503.6
180°	504.5	504.5	504.5	504.5	504.5

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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