

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: P853643

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853643
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-125U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

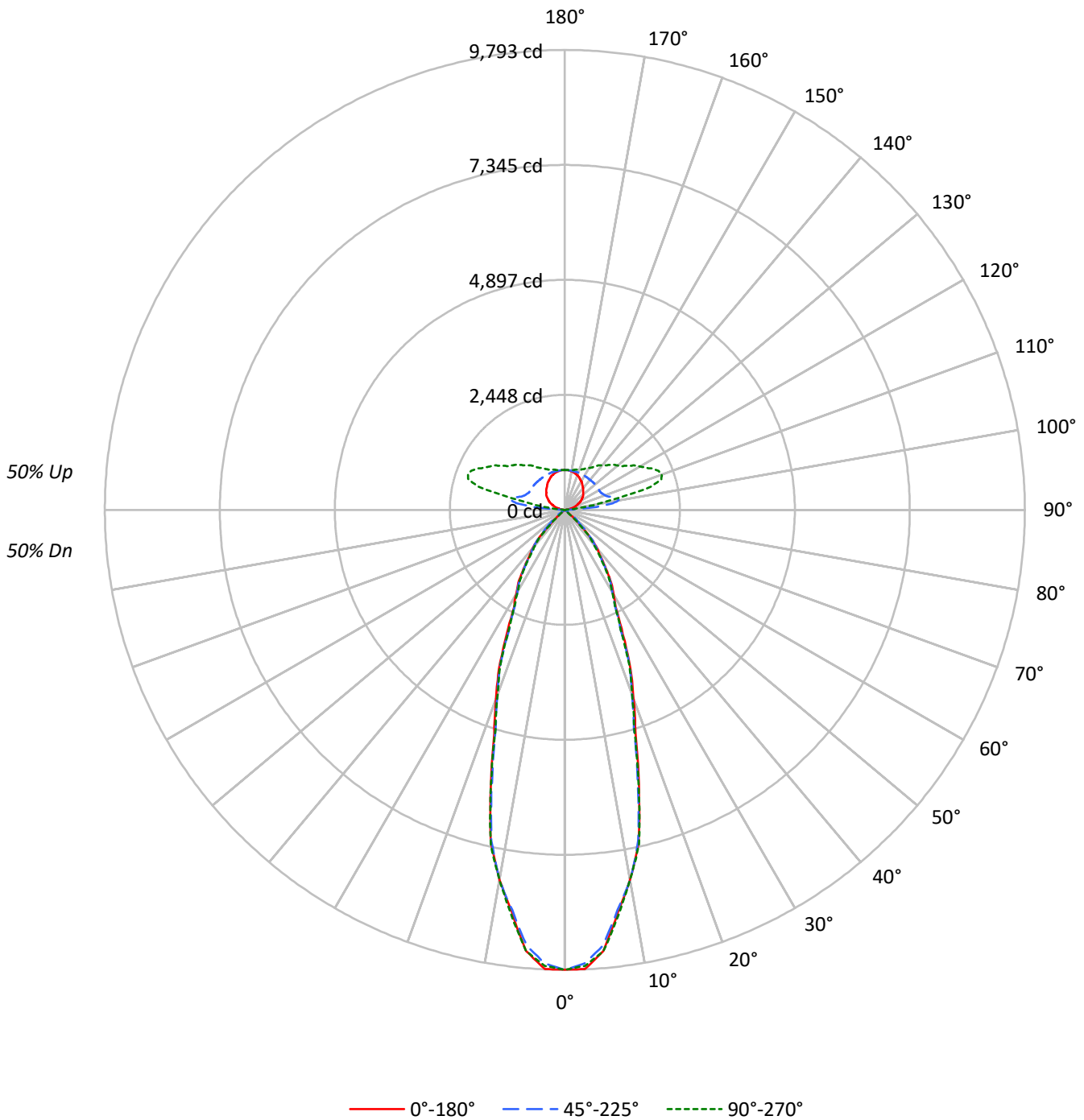
Lumens per Lamp: N/A
Luminaire Lumens: 10533.6 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.7
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	83	83	83	69	69	69	56	56	56	50
1	100	97	94	91	93	90	87	85	77	75	74	65	64	63	54	53	52	47
2	94	88	83	79	87	82	78	75	71	68	66	60	59	57	51	50	49	44
3	88	80	75	70	81	75	70	66	65	62	59	56	54	52	48	46	45	41
4	82	74	67	63	76	69	64	60	61	57	54	53	50	48	45	44	42	39
5	77	68	61	56	72	64	58	54	56	52	49	49	46	44	43	41	39	36
6	72	63	56	51	67	59	53	49	53	48	45	46	43	41	41	39	37	34
7	68	58	52	47	64	55	49	45	49	45	42	44	41	38	39	36	35	32
8	64	54	48	43	60	51	46	42	46	42	39	41	38	36	37	34	33	31
9	61	51	44	40	57	48	43	39	43	39	36	39	36	33	35	33	31	29
10	58	47	41	37	54	45	40	36	41	37	34	37	34	32	33	31	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	158116	158116	158116
5°	152827	150939	152913
10°	131158	131245	131158
15°	101803	100180	101568
20°	73472	71957	71897
25°	52096	50021	50115
30°	38760	37772	37410
35°	30159	29394	28767
40°	22318	21760	20383
45°	11403	13983	9188
50°	2482	7714	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: 13983 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	846.8	8.0
10°-20°	1669.5	15.8
20°-30°	1346.8	12.8
30°-40°	935.6	8.9
40°-50°	432.2	4.1
50°-60°	60.7	0.6
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	324.8	3.1
100°-110°	1057.5	10.0
110°-120°	1046.1	9.9
120°-130°	854.9	8.1
130°-140°	698.7	6.6
140°-150°	544.2	5.2
150°-160°	392.3	3.7
160°-170°	239.8	2.3
170°-180°	80.9	0.8
0°-30°	3863.0	36.7
0°-40°	4798.6	45.6
0°-60°	5291.5	50.2
0°-90°	5294.8	50.3
90°-120°	2428.4	23.1
90°-150°	4526.1	43.0
90°-180°	5239.0	49.7
0°-180°	10533.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9793	9793	9793	9793	9793	
5°	9429	9379	9313	9428	9435	847
15°	6090	6168	5993	6078	6076	1677
25°	2924	2859	2808	2849	2813	1369
35°	1530	1530	1491	1465	1460	958
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	3	7	6	6	2
95°	44	134	595	212	131	51
105°	180	259	1048	2001	1895	192
115°	332	396	853	1759	2069	329
125°	462	515	842	1388	1637	411
135°	558	616	838	1198	1352	431
145°	652	700	836	1032	1130	408
155°	744	768	841	924	959	343
165°	812	819	843	874	885	229
175°	846	846	846	852	850	80
180°	849	849	849	849	849	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9793.0	9793.0	9793.0	9793.0	9793.0
2.5°	9787.3	9751.4	9665.9	9743.0	9719.5
5°	9429.4	9379.4	9312.9	9427.8	9434.7
7.5°	8639.5	8655.7	8593.9	8720.7	8707.2
10°	7999.9	8012.0	8005.2	8046.5	7999.9
12.5°	7258.7	7306.7	7216.0	7280.0	7299.6
15°	6090.4	6168.0	5993.3	6078.0	6076.3
17.5°	4994.8	4986.8	4896.7	4912.4	4907.2
20°	4276.1	4264.1	4187.9	4175.8	4184.4
22.5°	3660.6	3640.2	3613.3	3582.8	3594.2
25°	2924.3	2858.7	2807.8	2849.4	2813.1
27.5°	2347.2	2346.2	2304.1	2308.9	2315.8
30°	2079.0	2066.9	2026.0	2027.3	2006.6
32.5°	1840.4	1849.0	1798.7	1788.7	1768.0
35°	1530.1	1530.1	1491.3	1464.7	1459.5
37.5°	1242.4	1239.3	1211.7	1174.0	1160.5
40°	1058.9	1050.3	1032.4	986.1	967.1
42.5°	849.9	873.1	855.9	809.4	780.8
45°	499.4	596.1	612.4	556.0	402.4
47.5°	214.6	320.9	408.7	266.4	138.7
50°	98.8	181.7	307.1	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	0.6	1.5	1.3	1.3
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.0	54.1	172.8	56.9	43.9
95°	43.9	133.7	595.3	212.3	130.6
97.5°	82.5	174.0	1010.4	615.4	375.6
100°	107.6	197.4	1166.7	1040.3	674.7
102.5°	136.0	222.6	1147.4	1539.1	1170.2
105°	179.6	259.3	1047.6	2000.8	1894.6
107.5°	226.9	301.8	952.7	2040.9	2153.4
110°	261.1	329.5	907.6	1991.2	2194.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	289.5	357.1	879.2	1901.4	2163.5
115°	332.1	396.5	853.3	1758.6	2069.1
117.5°	376.0	434.0	843.3	1627.8	1936.8
120°	401.1	458.3	840.8	1547.4	1846.6
122.5°	425.3	481.7	841.6	1477.5	1756.3
125°	461.6	514.8	841.8	1388.5	1636.7
127.5°	492.8	547.1	841.6	1321.8	1528.7
130°	512.8	568.0	840.8	1283.7	1468.5
132.5°	530.4	588.0	839.9	1248.3	1421.7
135°	557.7	615.9	837.6	1198.3	1351.5
137.5°	584.5	643.1	835.4	1147.6	1283.6
140°	603.7	659.9	834.5	1113.2	1241.9
142.5°	622.1	675.8	834.5	1080.3	1195.1
145°	651.7	699.7	835.6	1032.1	1130.1
147.5°	680.6	722.2	837.0	991.0	1066.8
150°	699.8	736.5	838.7	966.5	1030.9
152.5°	719.0	749.2	839.5	947.9	999.1
155°	743.6	768.2	840.8	924.1	958.8
157.5°	767.0	784.6	842.0	906.5	930.8
160°	781.2	795.5	842.9	895.5	914.9
162.5°	793.8	804.8	842.9	886.2	900.7
165°	811.5	818.7	842.9	874.4	884.6
167.5°	824.1	828.6	843.1	865.6	870.9
170°	832.4	834.5	843.9	859.6	861.7
172.5°	838.3	839.5	845.6	856.2	855.8
175°	846.0	846.0	846.0	852.2	850.2
177.5°	849.1	848.3	847.5	851.6	848.3
180°	849.1	849.1	849.1	849.1	849.1

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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