

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: P853640

Luminaire Tested: SQ2-BBN-125U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853640
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-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

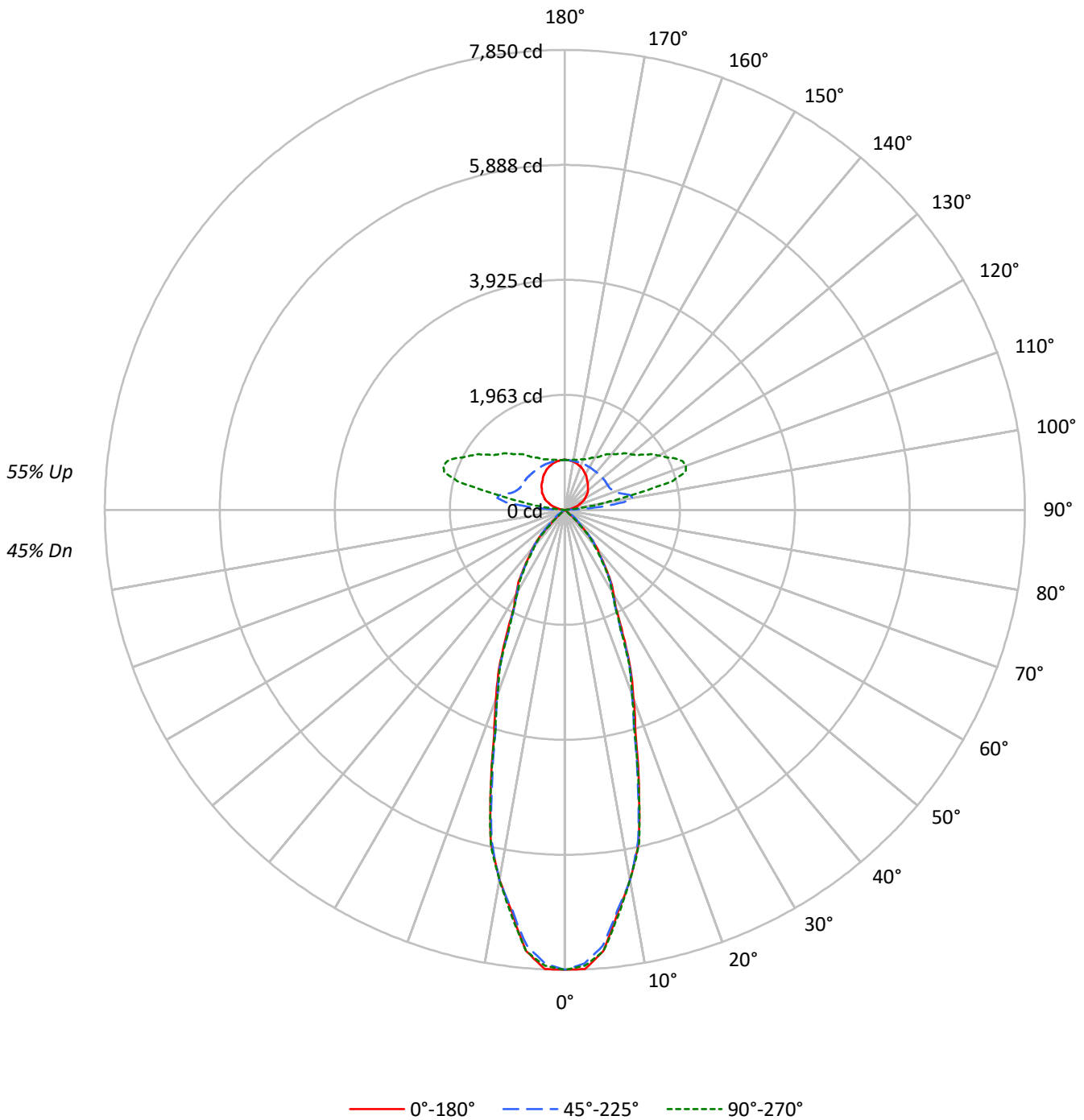
Lumens per Lamp: N/A
Luminaire Lumens: 9501.2 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 82
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	80	80	80	65	65	65	51	51	51	45
1	99	95	92	90	91	88	85	83	74	72	70	61	60	59	49	48	47	42
2	92	86	81	77	85	80	76	72	68	65	62	56	55	53	46	45	44	39
3	86	78	73	68	79	73	68	64	62	59	56	52	50	48	43	42	41	37
4	80	72	65	60	74	67	61	57	57	54	51	49	46	44	41	39	38	35
5	75	66	59	54	69	61	56	51	53	49	46	46	43	41	39	37	35	32
6	70	60	54	49	65	57	51	47	50	45	42	43	40	38	37	35	33	30
7	66	56	49	45	61	53	47	43	46	42	39	40	37	35	35	33	31	29
8	62	52	46	41	58	49	43	39	43	39	36	38	35	33	33	31	29	27
9	59	48	42	38	55	46	40	36	41	36	34	36	33	31	31	29	28	26
10	56	45	39	35	52	43	38	34	38	34	31	34	31	29	30	28	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	126737	126737	126737
5°	122498	120986	122568
10°	105129	105200	105129
15°	81600	80299	81411
20°	58891	57677	57629
25°	41758	40094	40169
30°	31068	30275	29986
35°	24173	23560	23059
40°	17890	17441	16339
45°	9140	11209	7364
50°	1989	6182	1457
55°	557	2508	439
60°	90	504	45
65°	0	53	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: 11209 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	678.8	7.1
10°-20°	1338.2	14.1
20°-30°	1079.5	11.4
30°-40°	749.9	7.9
40°-50°	346.4	3.6
50°-60°	48.6	0.5
60°-70°	1.7	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	325.9	3.4
100°-110°	1061.2	11.2
110°-120°	1049.7	11.0
120°-130°	857.8	9.0
130°-140°	701.1	7.4
140°-150°	546.1	5.7
150°-160°	393.6	4.1
160°-170°	240.6	2.5
170°-180°	81.2	0.9
0°-30°	3096.4	32.6
0°-40°	3846.3	40.5
0°-60°	4241.4	44.6
0°-90°	4244.3	44.7
90°-120°	2436.8	25.6
90°-150°	4541.8	47.8
90°-180°	5257.0	55.3
0°-180°	9501.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7850	7850	7850	7850	7850	
5°	7558	7518	7465	7557	7562	679
15°	4882	4944	4804	4872	4870	1344
25°	2344	2291	2251	2284	2255	1097
35°	1226	1226	1195	1174	1170	767
45°	400	478	491	446	322	323
55°	20	31	89	25	16	25
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	3	7	6	6	2
95°	44	134	597	213	131	51
105°	180	260	1051	2008	1901	192
115°	333	398	856	1765	2076	330
125°	463	516	845	1393	1642	412
135°	560	618	841	1202	1356	432
145°	654	702	838	1036	1134	409
155°	746	771	844	927	962	344
165°	814	822	846	878	888	229
175°	849	849	849	855	853	81
180°	852	852	852	852	852	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7849.5	7849.5	7849.5	7849.5	7849.5
2.5°	7845.0	7816.2	7747.7	7809.5	7790.7
5°	7558.1	7518.0	7464.8	7556.8	7562.4
7.5°	6925.0	6938.0	6888.5	6990.1	6979.3
10°	6412.3	6422.0	6416.6	6449.7	6412.3
12.5°	5818.2	5856.6	5783.9	5835.2	5851.0
15°	4881.7	4944.0	4803.9	4871.8	4870.4
17.5°	4003.6	3997.2	3924.9	3937.5	3933.4
20°	3427.5	3417.9	3356.8	3347.1	3354.0
22.5°	2934.1	2917.8	2896.2	2871.8	2880.9
25°	2344.0	2291.4	2250.6	2283.9	2254.8
27.5°	1881.4	1880.6	1846.9	1850.7	1856.2
30°	1666.4	1656.7	1623.9	1625.0	1608.4
32.5°	1475.1	1482.0	1441.7	1433.7	1417.1
35°	1226.4	1226.4	1195.3	1174.0	1169.9
37.5°	995.9	993.4	971.3	941.0	930.2
40°	848.8	841.8	827.5	790.4	775.2
42.5°	681.3	699.8	686.1	648.8	625.8
45°	400.3	477.8	490.9	445.6	322.5
47.5°	172.0	257.2	327.6	213.5	111.2
50°	79.2	145.6	246.1	105.0	58.0
52.5°	46.4	79.6	182.8	61.4	36.5
55°	19.8	30.9	89.1	25.2	15.6
57.5°	7.4	13.4	33.7	10.9	5.9
60°	2.8	5.6	15.6	4.2	1.4
62.5°	0.6	2.2	7.6	1.9	0.3
65°	0.0	0.0	1.4	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°	15.1	54.2	173.4	57.1	44.0
95°	44.0	134.2	597.4	213.0	131.0
97.5°	82.8	174.6	1013.9	617.5	376.9
100°	108.0	198.1	1170.7	1043.9	677.1
102.5°	136.5	223.4	1151.4	1544.4	1174.3
105°	180.3	260.2	1051.2	2007.8	1901.2
107.5°	227.6	302.9	956.1	2048.0	2160.9
110°	262.0	330.7	910.8	1998.1	2202.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	290.5	358.4	882.3	1908.0	2171.0
115°	333.3	397.9	856.3	1764.7	2076.3
117.5°	377.3	435.5	846.2	1633.5	1943.6
120°	402.5	459.9	843.7	1552.7	1853.0
122.5°	426.8	483.3	844.5	1482.7	1762.5
125°	463.3	516.5	844.8	1393.3	1642.3
127.5°	494.5	549.0	844.5	1326.4	1534.0
130°	514.6	569.9	843.7	1288.1	1473.6
132.5°	532.2	590.0	842.9	1252.6	1426.7
135°	559.7	618.1	840.6	1202.5	1356.2
137.5°	586.5	645.3	838.3	1151.6	1288.1
140°	605.8	662.2	837.4	1117.0	1246.2
142.5°	624.2	678.1	837.4	1084.0	1199.2
145°	654.0	702.2	838.5	1035.6	1134.0
147.5°	682.9	724.7	839.9	994.5	1070.5
150°	702.2	739.1	841.6	969.9	1034.5
152.5°	721.5	751.8	842.5	951.2	1002.6
155°	746.2	770.8	843.7	927.3	962.1
157.5°	769.7	787.3	845.0	909.7	934.1
160°	784.0	798.3	845.8	898.7	918.1
162.5°	796.5	807.6	845.8	889.3	903.9
165°	814.4	821.5	845.8	877.5	887.7
167.5°	826.9	831.4	846.0	868.6	873.9
170°	835.3	837.4	846.9	862.6	864.7
172.5°	841.2	842.4	848.5	859.2	858.8
175°	848.9	848.9	848.9	855.2	853.1
177.5°	852.1	851.3	850.4	854.5	851.3
180°	852.1	852.1	852.1	852.1	852.1



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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