

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: P853622

Luminaire Tested: SQ2-BBN-100U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853622
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-100U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

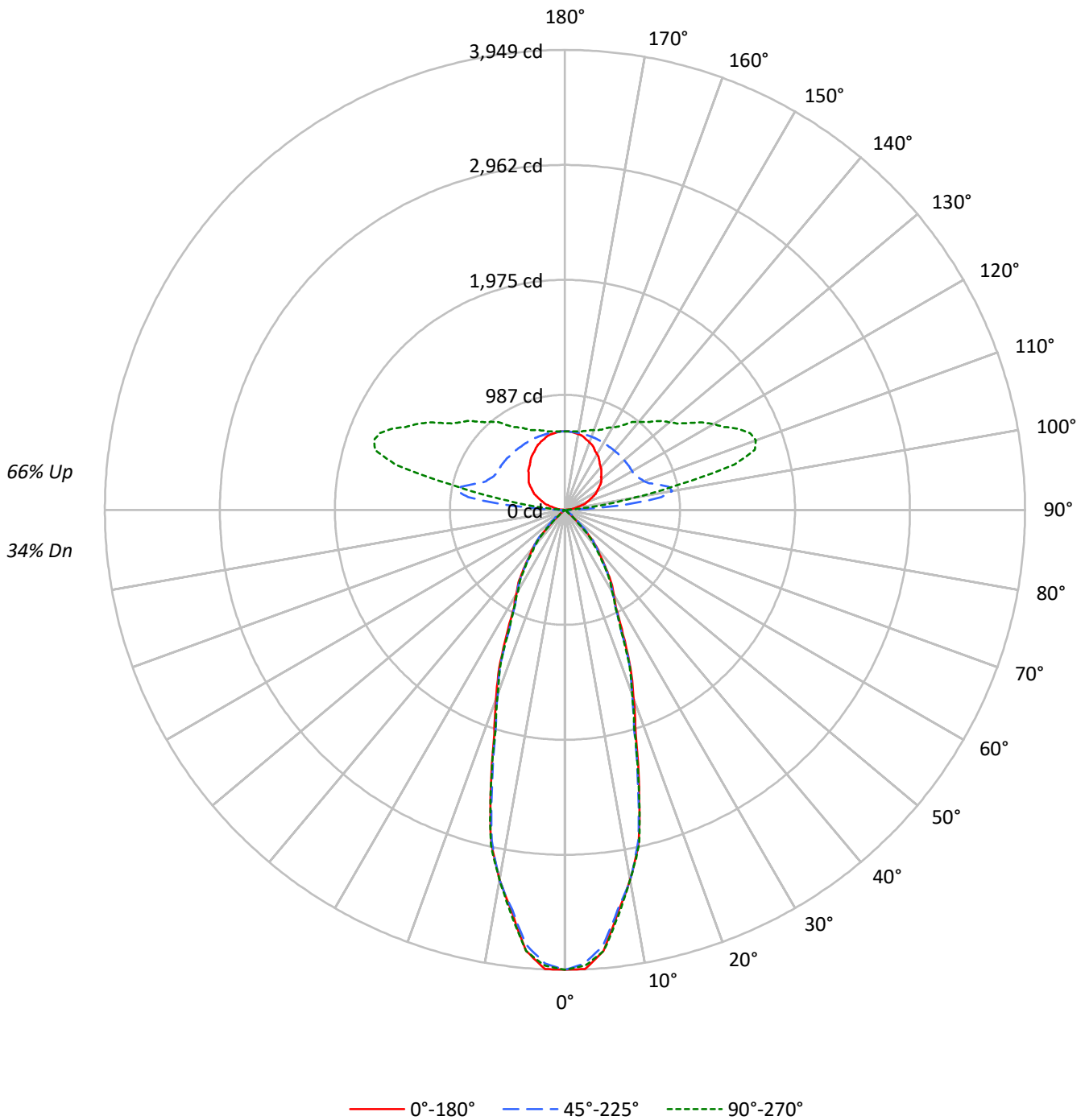
Lumens per Lamp: N/A
Luminaire Lumens: 6328.0 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.7
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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	96	92	89	86	86	84	81	79	67	66	64	53	52	51	39	38	38	32
2	89	83	78	74	80	75	71	68	61	59	56	49	47	45	37	36	35	30
3	82	75	69	64	75	68	63	59	56	53	50	45	43	41	34	33	32	28
4	77	68	61	56	69	62	57	52	51	48	45	42	39	37	32	31	30	26
5	71	62	55	50	65	57	51	47	47	43	40	39	36	34	31	29	28	24
6	67	56	50	45	61	52	46	42	44	40	37	36	33	31	29	27	26	23
7	62	52	45	40	57	48	42	38	41	36	33	34	31	29	27	26	24	22
8	58	48	41	37	53	44	39	35	38	34	31	32	29	27	26	24	23	21
9	55	44	38	34	50	41	36	32	35	31	28	30	27	25	25	23	22	19
10	52	41	35	31	48	39	33	29	33	29	26	28	25	23	23	22	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63753	63753	63753
5°	61621	60861	61657
10°	52883	52920	52883
15°	41048	40394	40953
20°	29625	29014	28990
25°	21006	20168	20208
30°	15629	15230	15085
35°	12159	11852	11600
40°	9000	8774	8220
45°	4599	5638	3704
50°	1000	3110	733
55°	281	1261	220
60°	45	252	23
65°	0	27	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: 5638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.4	5.4
10°-20°	673.2	10.6
20°-30°	543.0	8.6
30°-40°	377.2	6.0
40°-50°	174.3	2.8
50°-60°	24.5	0.4
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	1.6	0.0
90°-100°	281.3	4.4
100°-110°	850.9	13.4
110°-120°	830.6	13.1
120°-130°	678.7	10.7
130°-140°	554.0	8.8
140°-150°	431.3	6.8
150°-160°	310.9	4.9
160°-170°	190.3	3.0
170°-180°	64.3	1.0
0°-30°	1557.6	24.6
0°-40°	1934.9	30.6
0°-60°	2133.6	33.7
0°-90°	2136.0	33.8
90°-120°	1962.8	31.0
90°-150°	3626.9	57.3
90°-180°	4192.0	66.2
0°-180°	6328.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3949	3949	3949	3949	3949	
5°	3802	3782	3755	3801	3804	342
15°	2456	2487	2417	2451	2450	676
25°	1179	1153	1132	1149	1134	552
35°	617	617	601	591	588	386
45°	201	240	247	224	162	163
55°	10	16	45	13	8	13
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	13	7	6	2
95°	35	110	531	196	124	41
105°	148	208	835	1587	1508	155
115°	263	314	676	1398	1642	260
125°	368	408	666	1104	1300	327
135°	441	488	662	952	1071	341
145°	515	553	662	819	896	323
155°	587	606	666	734	762	270
165°	642	649	669	695	703	181
175°	672	672	673	678	676	64
180°	674	674	674	674	674	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3948.6	3948.6	3948.6	3948.6	3948.6
2.5°	3946.3	3931.9	3897.4	3928.5	3919.0
5°	3802.0	3781.9	3755.1	3801.4	3804.2
7.5°	3483.5	3490.1	3465.2	3516.3	3510.8
10°	3225.6	3230.5	3227.8	3244.4	3225.6
12.5°	2926.8	2946.1	2909.6	2935.4	2943.3
15°	2455.7	2487.0	2416.6	2450.7	2450.0
17.5°	2013.9	2010.7	1974.4	1980.7	1978.7
20°	1724.2	1719.3	1688.6	1683.7	1687.2
22.5°	1476.0	1467.8	1456.9	1444.6	1449.2
25°	1179.1	1152.7	1132.1	1148.9	1134.3
27.5°	946.4	946.0	929.1	931.0	933.8
30°	838.3	833.4	816.9	817.4	809.1
32.5°	742.0	745.5	725.3	721.2	712.9
35°	616.9	616.9	601.3	590.6	588.5
37.5°	501.0	499.7	488.6	473.4	467.9
40°	427.0	423.5	416.3	397.6	390.0
42.5°	342.7	352.0	345.1	326.4	314.8
45°	201.4	240.3	246.9	224.2	162.2
47.5°	86.5	129.4	164.8	107.4	55.9
50°	39.8	73.2	123.8	52.8	29.2
52.5°	23.3	40.0	91.9	30.9	18.4
55°	10.0	15.5	44.8	12.7	7.8
57.5°	3.7	6.8	16.9	5.5	3.0
60°	1.4	2.8	7.8	2.1	0.7
62.5°	0.3	1.1	3.8	1.0	0.1
65°	0.0	0.0	0.7	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	0.4	2.5	1.5	1.3
90°	0.0	2.1	12.7	7.4	6.3
92.5°	11.8	47.8	171.7	57.0	41.0
95°	34.9	110.4	530.9	196.1	123.7
97.5°	67.5	140.5	836.7	553.6	337.1
100°	87.8	159.1	934.8	903.8	607.0
102.5°	110.6	179.5	914.5	1267.6	1010.5
105°	148.0	208.0	835.4	1586.6	1508.0
107.5°	183.6	240.9	759.3	1618.1	1709.1
110°	207.3	262.1	721.2	1578.4	1743.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	230.1	283.3	698.4	1511.7	1721.0
115°	263.3	314.0	675.7	1398.3	1642.3
117.5°	296.3	344.3	667.7	1292.0	1541.8
120°	318.3	363.8	665.2	1230.0	1469.9
122.5°	338.6	381.6	665.2	1175.5	1397.1
125°	368.0	408.3	666.2	1104.2	1299.6
127.5°	391.9	433.7	665.2	1050.5	1217.2
130°	407.1	450.6	665.2	1019.7	1170.6
132.5°	420.7	464.9	664.3	991.5	1130.9
135°	441.0	487.5	662.0	952.3	1071.2
137.5°	463.6	507.9	662.0	910.5	1020.7
140°	478.0	521.4	662.0	883.3	987.7
142.5°	492.4	534.1	661.1	858.4	949.6
145°	515.0	553.3	662.0	819.2	895.7
147.5°	537.6	570.1	663.3	786.8	845.6
150°	552.0	582.0	664.1	768.9	818.5
152.5°	565.5	592.2	664.9	753.4	794.0
155°	586.9	606.5	666.2	734.5	762.4
157.5°	605.5	621.4	667.5	720.6	740.0
160°	616.5	630.0	668.3	712.0	726.5
162.5°	627.5	637.6	669.2	704.3	716.3
165°	641.9	649.1	669.4	695.0	703.2
167.5°	654.2	657.9	670.7	687.7	691.2
170°	660.9	663.0	671.5	684.2	685.3
172.5°	665.2	666.4	671.5	680.8	681.0
175°	671.5	671.5	672.6	677.8	675.7
177.5°	674.5	673.6	672.8	675.3	673.6
180°	673.6	673.6	673.6	673.6	673.6



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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