

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: P853538

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853538
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-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

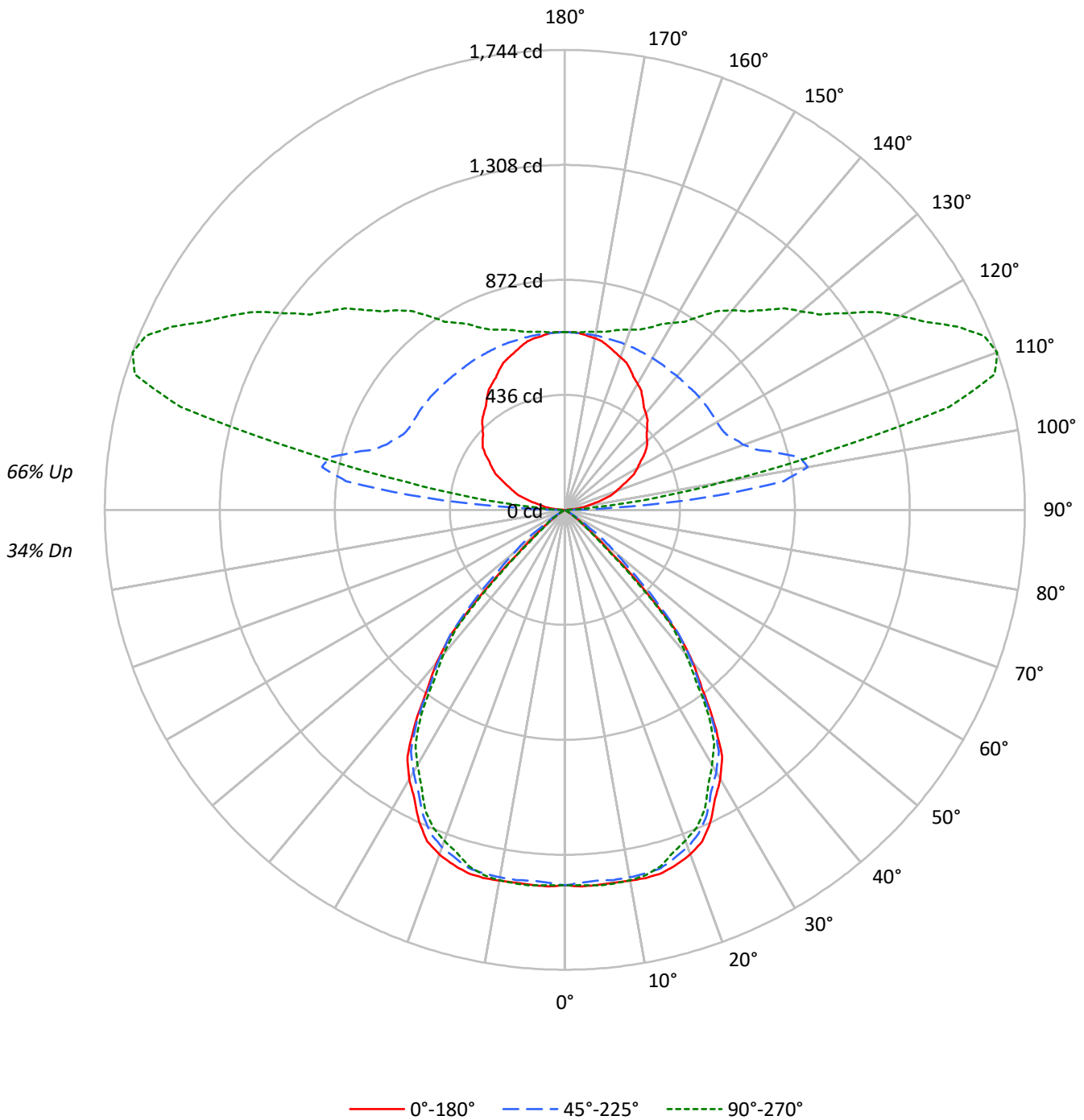
Lumens per Lamp: N/A
Luminaire Lumens: 6318.7 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	95	92	88	85	86	83	80	78	67	65	63	52	51	50	38	38	37	31
2	88	82	76	72	80	74	70	66	60	57	55	47	46	44	35	34	34	28
3	81	73	67	62	73	67	61	57	54	51	48	43	41	39	33	31	30	26
4	75	66	59	53	68	60	54	50	49	45	42	39	37	35	30	29	27	23
5	69	59	52	47	63	54	48	43	45	40	37	36	33	31	28	26	25	21
6	64	54	46	41	58	49	43	38	41	36	33	33	30	28	26	24	23	19
7	60	49	42	37	54	45	39	34	37	33	30	31	27	25	24	22	21	18
8	56	44	37	33	50	41	35	31	34	30	27	28	25	23	22	20	19	16
9	52	41	34	29	47	38	32	28	32	27	24	26	23	21	21	19	17	15
10	49	38	31	27	44	35	29	25	29	25	22	24	21	19	19	17	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22982	22982	22982
5°	23139	22882	23174
10°	23407	23199	23389
15°	23829	23510	23405
20°	23893	23385	22948
25°	23266	22700	22342
30°	21981	21388	20816
35°	19484	19253	18711
40°	15905	15681	15057
45°	9376	11067	8725
50°	3162	6167	2818
55°	1072	2204	1132
60°	103	649	36
65°	0	42	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: 11067 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	2.2
10°-20°	398.1	6.3
20°-30°	585.9	9.3
30°-40°	598.6	9.5
40°-50°	344.1	5.4
50°-60°	60.2	1.0
60°-70°	2.2	0.0
70°-80°	0.0	0.0
80°-90°	1.6	0.0
90°-100°	281.3	4.5
100°-110°	850.9	13.5
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°	1120.0	17.7
0°-40°	1718.6	27.2
0°-60°	2122.9	33.6
0°-90°	2126.6	33.7
90°-120°	1962.8	31.1
90°-150°	3626.9	57.4
90°-180°	4192.0	66.3
0°-180°	6318.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1428	1425	1412	1432	1430	136
15°	1426	1438	1406	1407	1400	402
25°	1306	1317	1274	1260	1254	597
35°	988	994	977	961	949	610
45°	411	478	485	460	382	321
55°	38	45	78	44	40	43
65°	0	0	1	0	0	1
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°	1423.4	1423.4	1423.4	1423.4	1423.4
2.5°	1429.4	1426.1	1415.0	1427.6	1424.3
5°	1427.7	1424.6	1411.8	1431.9	1429.8
7.5°	1426.8	1424.3	1415.8	1433.3	1429.2
10°	1427.7	1427.7	1415.0	1430.8	1426.6
12.5°	1429.4	1433.5	1412.4	1424.8	1419.0
15°	1425.6	1438.0	1406.5	1407.4	1400.2
17.5°	1410.1	1426.9	1383.9	1373.7	1362.7
20°	1390.6	1408.2	1361.0	1344.9	1335.6
22.5°	1361.0	1377.8	1328.0	1314.4	1304.3
25°	1306.0	1317.4	1274.2	1260.3	1254.1
27.5°	1234.0	1239.8	1202.3	1187.8	1177.5
30°	1179.0	1179.0	1147.2	1131.0	1116.5
32.5°	1110.4	1107.1	1086.3	1067.5	1053.9
35°	988.5	993.6	976.8	960.7	949.3
37.5°	853.6	858.6	841.4	823.0	815.1
40°	754.6	758.7	744.0	724.7	714.4
42.5°	632.7	655.0	641.6	620.5	606.8
45°	410.6	477.9	484.7	459.7	382.1
47.5°	214.0	284.4	336.1	256.7	179.9
50°	125.9	171.5	245.5	140.1	112.2
52.5°	81.1	100.9	172.7	89.6	75.8
55°	38.1	45.3	78.3	44.4	40.2
57.5°	14.2	21.2	35.3	21.5	15.5
60°	3.2	9.4	20.1	6.2	1.1
62.5°	0.6	2.7	11.6	1.2	0.2
65°	0.0	0.0	1.1	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	0.09	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