

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: P853537

Luminaire Tested: SQ2-BBM-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853537  
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-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

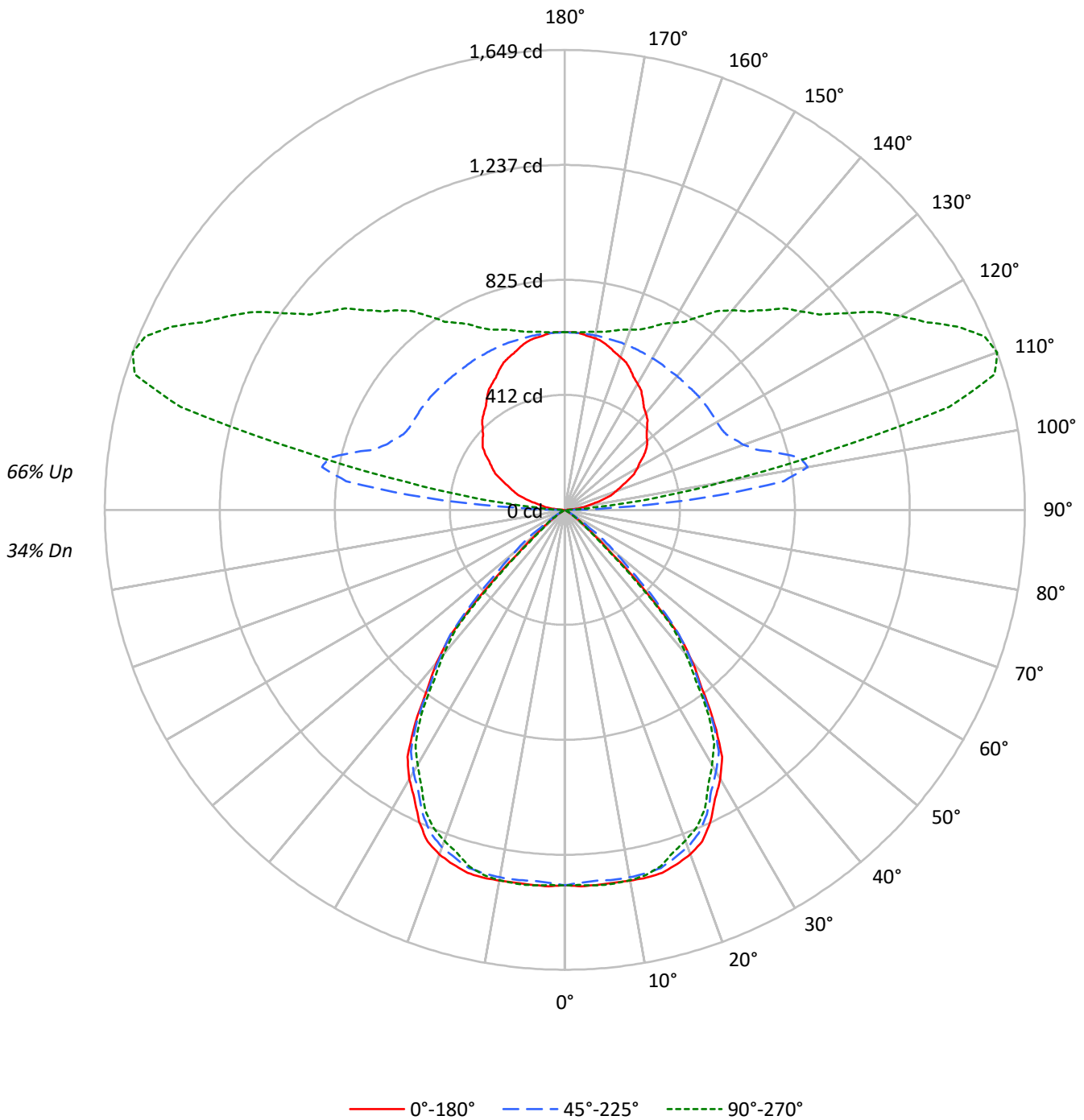
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5973.5 lumens  
Efficiency: N/A  
Efficacy: 117.8 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°	21727	21727	21727
5°	21875	21632	21908
10°	22128	21931	22112
15°	22527	22226	22126
20°	22589	22108	21696
25°	21994	21460	21121
30°	20780	20221	19680
35°	18419	18203	17690
40°	15036	14825	14235
45°	8864	10462	8248
50°	2992	5830	2665
55°	1013	2083	1070
60°	97	614	32
65°	0	38	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: 10462 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.6	2.2
10°-20°	376.4	6.3
20°-30°	553.9	9.3
30°-40°	565.9	9.5
40°-50°	325.3	5.4
50°-60°	56.9	1.0
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	266.0	4.5
100°-110°	804.4	13.5
110°-120°	785.2	13.1
120°-130°	641.7	10.7
130°-140°	523.8	8.8
140°-150°	407.7	6.8
150°-160°	293.9	4.9
160°-170°	179.9	3.0
170°-180°	60.8	1.0
0°-30°	1058.8	17.7
0°-40°	1624.7	27.2
0°-60°	2007.0	33.6
0°-90°	2010.5	33.7
90°-120°	1855.6	31.1
90°-150°	3428.7	57.4
90°-180°	3963.0	66.3
0°-180°	5973.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1350	1347	1335	1354	1352	129
15°	1348	1359	1330	1330	1324	380
25°	1235	1245	1205	1192	1186	564
35°	934	939	924	908	898	577
45°	388	452	458	435	361	304
55°	36	43	74	42	38	41
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	12	7	6	2
95°	33	104	502	185	117	39
105°	140	197	790	1500	1426	147
115°	249	297	639	1322	1553	246
125°	348	386	630	1044	1229	309
135°	417	461	626	900	1013	323
145°	487	523	626	774	847	305
155°	555	573	630	694	721	255
165°	607	614	633	657	665	171
175°	635	635	636	641	639	60
180°	637	637	637	637	637	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1345.7	1345.7	1345.7	1345.7	1345.7
2.5°	1351.3	1348.2	1337.7	1349.6	1346.5
5°	1349.7	1346.8	1334.7	1353.7	1351.7
7.5°	1348.9	1346.6	1338.5	1355.0	1351.1
10°	1349.7	1349.7	1337.7	1352.6	1348.7
12.5°	1351.3	1355.2	1335.3	1347.0	1341.5
15°	1347.7	1359.4	1329.7	1330.5	1323.7
17.5°	1333.1	1348.9	1308.3	1298.6	1288.3
20°	1314.7	1331.3	1286.7	1271.5	1262.7
22.5°	1286.7	1302.5	1255.5	1242.6	1233.0
25°	1234.6	1245.4	1204.6	1191.5	1185.6
27.5°	1166.6	1172.1	1136.6	1123.0	1113.2
30°	1114.6	1114.6	1084.6	1069.2	1055.6
32.5°	1049.7	1046.6	1026.9	1009.2	996.3
35°	934.5	939.4	923.5	908.2	897.5
37.5°	807.0	811.7	795.4	778.0	770.6
40°	713.4	717.3	703.4	685.1	675.4
42.5°	598.1	619.2	606.5	586.6	573.7
45°	388.2	451.8	458.2	434.6	361.2
47.5°	202.3	268.8	317.8	242.7	170.1
50°	119.1	162.1	232.1	132.5	106.1
52.5°	76.6	95.4	163.3	84.7	71.6
55°	36.0	42.9	74.0	41.9	38.0
57.5°	13.4	20.1	33.4	20.3	14.6
60°	3.0	8.9	19.0	5.9	1.0
62.5°	0.6	2.6	11.0	1.2	0.2
65°	0.0	0.0	1.0	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	2.4	1.4	1.2
90°	0.0	2.0	12.0	7.0	6.0
92.5°	11.2	45.2	162.4	53.8	38.8
95°	33.0	104.3	501.9	185.4	117.0
97.5°	63.8	132.8	791.0	523.4	318.7
100°	83.0	150.4	883.8	854.4	573.8
102.5°	104.6	169.7	864.6	1198.4	955.3
105°	140.0	196.7	789.8	1499.9	1425.6
107.5°	173.6	227.7	717.8	1529.7	1615.8
110°	195.9	247.8	681.8	1492.2	1648.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	217.5	267.8	660.2	1429.1	1627.0
115°	248.9	296.8	638.8	1321.9	1552.6
117.5°	280.1	325.5	631.2	1221.4	1457.6
120°	300.9	343.9	628.8	1162.8	1389.6
122.5°	320.1	360.8	628.8	1111.3	1320.8
125°	347.9	386.0	629.8	1043.9	1228.7
127.5°	370.5	410.0	628.8	993.1	1150.7
130°	384.9	426.0	628.8	964.0	1106.7
132.5°	397.7	439.5	628.0	937.3	1069.1
135°	416.9	460.9	625.8	900.3	1012.7
137.5°	438.3	480.1	625.8	860.7	964.9
140°	451.9	492.9	625.8	835.0	933.8
142.5°	465.5	505.0	625.0	811.5	897.8
145°	486.9	523.0	625.8	774.4	846.8
147.5°	508.3	539.0	627.0	743.9	799.4
150°	521.9	550.2	627.8	726.9	773.8
152.5°	534.7	559.9	628.6	712.3	750.6
155°	554.9	573.4	629.8	694.4	720.8
157.5°	572.4	587.5	631.0	681.2	699.6
160°	582.8	595.6	631.8	673.1	686.8
162.5°	593.2	602.8	632.6	665.9	677.2
165°	606.8	613.7	632.8	657.0	664.8
167.5°	618.4	622.0	634.0	650.1	653.4
170°	624.8	626.8	634.8	646.8	647.8
172.5°	628.8	630.0	634.8	643.6	643.8
175°	634.8	634.8	635.8	640.8	638.8
177.5°	637.6	636.8	636.0	638.4	636.8
180°	636.8	636.8	636.8	636.8	636.8

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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