

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: P853550

Luminaire Tested: SQ2-BBM-125U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

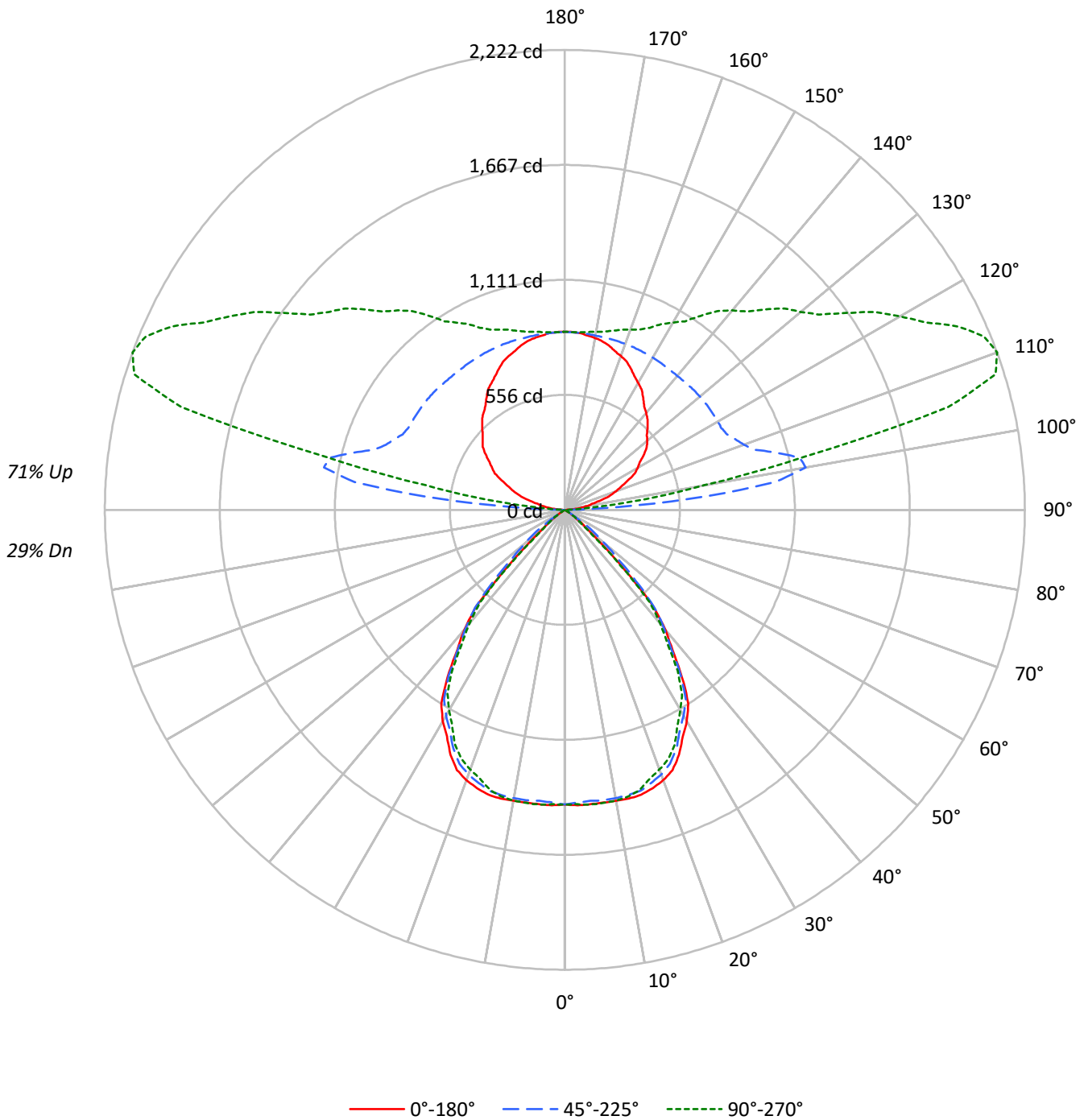
Test Method: LM-79-2019  
Report Number: P853550  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-125U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7430.7 lumens  
Efficiency: N/A  
Efficacy: 119.9 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): 62  
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29
1	94	90	87	84	84	81	78	76	64	62	61	48	47	46	34	33	33	26
2	87	80	75	71	78	72	68	64	58	55	52	44	42	41	31	30	30	24
3	80	72	65	60	72	65	59	55	52	48	45	40	38	36	29	28	27	22
4	74	64	57	52	66	58	52	48	47	43	40	36	34	32	27	25	24	20
5	68	58	50	45	61	52	46	42	42	38	35	33	30	28	25	23	22	18
6	63	52	45	40	57	47	41	37	39	34	31	30	28	25	23	21	20	17
7	58	47	40	35	52	43	37	33	35	31	28	28	25	23	21	19	18	15
8	54	43	36	31	49	39	33	29	32	28	25	26	23	21	20	18	16	14
9	51	39	33	28	46	36	30	26	30	25	22	24	21	19	18	16	15	13
10	47	36	30	25	43	33	27	24	28	23	20	22	19	17	17	15	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	22977	22977	22977
5°	23133	22877	23169
10°	23400	23192	23384
15°	23823	23505	23398
20°	23888	23380	22943
25°	23261	22694	22336
30°	21975	21382	20812
35°	19478	19249	18707
40°	15900	15677	15053
45°	9373	11065	8722
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: 11065 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.0	1.8
10°-20°	398.0	5.4
20°-30°	585.7	7.9
30°-40°	598.4	8.1
40°-50°	344.1	4.6
50°-60°	60.2	0.8
60°-70°	2.2	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	328.9	4.4
100°-110°	1070.9	14.4
110°-120°	1059.3	14.3
120°-130°	865.7	11.6
130°-140°	707.5	9.5
140°-150°	551.1	7.4
150°-160°	397.2	5.3
160°-170°	242.8	3.3
170°-180°	81.9	1.1
0°-30°	1119.7	15.1
0°-40°	1718.2	23.1
0°-60°	2122.4	28.6
0°-90°	2125.8	28.6
90°-120°	2459.0	33.1
90°-150°	4583.3	61.7
90°-180°	5305.0	71.4
0°-180°	7430.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1427	1424	1412	1432	1430	136
15°	1425	1438	1406	1407	1400	401
25°	1306	1317	1274	1260	1254	597
35°	988	993	977	960	949	610
45°	410	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	3	7	6	6	2
95°	44	135	603	215	132	52
105°	182	263	1061	2026	1919	194
115°	336	402	864	1781	2095	333
125°	468	521	852	1406	1657	416
135°	565	624	848	1214	1369	436
145°	660	709	846	1045	1144	413
155°	753	778	851	936	971	347
165°	822	829	854	886	896	231
175°	857	857	857	863	861	81
180°	860	860	860	860	860	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1423.1	1423.1	1423.1	1423.1	1423.1
2.5°	1429.0	1425.7	1414.6	1427.3	1424.0
5°	1427.3	1424.2	1411.5	1431.5	1429.5
7.5°	1426.5	1424.0	1415.5	1433.0	1428.8
10°	1427.3	1427.3	1414.6	1430.4	1426.3
12.5°	1429.0	1433.2	1412.1	1424.5	1418.7
15°	1425.2	1437.6	1406.2	1407.1	1399.8
17.5°	1409.8	1426.5	1383.5	1373.3	1362.4
20°	1390.3	1407.9	1360.7	1344.6	1335.3
22.5°	1360.7	1377.4	1327.7	1314.1	1304.0
25°	1305.7	1317.0	1273.9	1260.0	1253.8
27.5°	1233.7	1239.5	1202.0	1187.6	1177.2
30°	1178.7	1178.7	1146.9	1130.7	1116.3
32.5°	1110.1	1106.8	1086.0	1067.3	1053.6
35°	988.2	993.4	976.6	960.5	949.1
37.5°	853.4	858.4	841.2	822.8	814.9
40°	754.4	758.5	743.8	724.5	714.2
42.5°	632.5	654.9	641.4	620.4	606.7
45°	410.5	477.8	484.6	459.6	382.0
47.5°	213.9	284.3	336.0	256.6	179.9
50°	125.9	171.4	245.5	140.1	112.2
52.5°	81.0	100.9	172.7	89.6	75.8
55°	38.1	45.3	78.3	44.3	40.2
57.5°	14.2	21.2	35.3	21.4	15.4
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	0.6	1.5	1.3	1.3
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.7	174.9	57.7	44.4
95°	44.4	135.4	602.9	214.9	132.2
97.5°	83.6	176.2	1023.2	623.1	380.3
100°	108.9	199.9	1181.4	1053.5	683.2
102.5°	137.7	225.4	1161.9	1558.5	1185.0
105°	181.9	262.6	1060.8	2026.1	1918.6
107.5°	229.7	305.6	964.8	2066.7	2180.7
110°	264.4	333.7	919.1	2016.3	2222.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	293.2	361.6	890.3	1925.4	2190.8
115°	336.3	401.5	864.1	1780.8	2095.2
117.5°	380.8	439.5	853.9	1648.4	1961.3
120°	406.1	464.0	851.4	1566.9	1869.9
122.5°	430.7	487.8	852.3	1496.2	1778.5
125°	467.5	521.3	852.5	1406.0	1657.3
127.5°	499.0	554.0	852.3	1338.5	1548.0
130°	519.3	575.1	851.4	1299.9	1487.1
132.5°	537.1	595.4	850.6	1264.1	1439.7
135°	564.8	623.7	848.2	1213.5	1368.6
137.5°	591.9	651.2	845.9	1162.1	1299.8
140°	611.3	668.2	845.1	1127.2	1257.5
142.5°	629.9	684.3	845.1	1093.9	1210.2
145°	660.0	708.6	846.1	1045.1	1144.4
147.5°	689.2	731.4	847.6	1003.5	1080.3
150°	708.6	745.9	849.3	978.7	1043.9
152.5°	728.1	758.7	850.1	959.8	1011.7
155°	753.0	777.9	851.4	935.8	970.9
157.5°	776.7	794.5	852.7	918.0	942.6
160°	791.1	805.6	853.5	906.8	926.5
162.5°	803.8	815.0	853.5	897.4	912.1
165°	821.8	829.0	853.5	885.5	895.8
167.5°	834.5	839.0	853.7	876.5	881.9
170°	842.9	845.0	854.6	870.5	872.6
172.5°	848.9	850.1	856.3	867.0	866.6
175°	856.7	856.7	856.7	863.0	860.9
177.5°	859.9	859.0	858.2	862.3	859.0
180°	859.9	859.9	859.9	859.9	859.9



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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