

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: P853557

Luminaire Tested: SQ2-BBM-125U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853557  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-125U-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

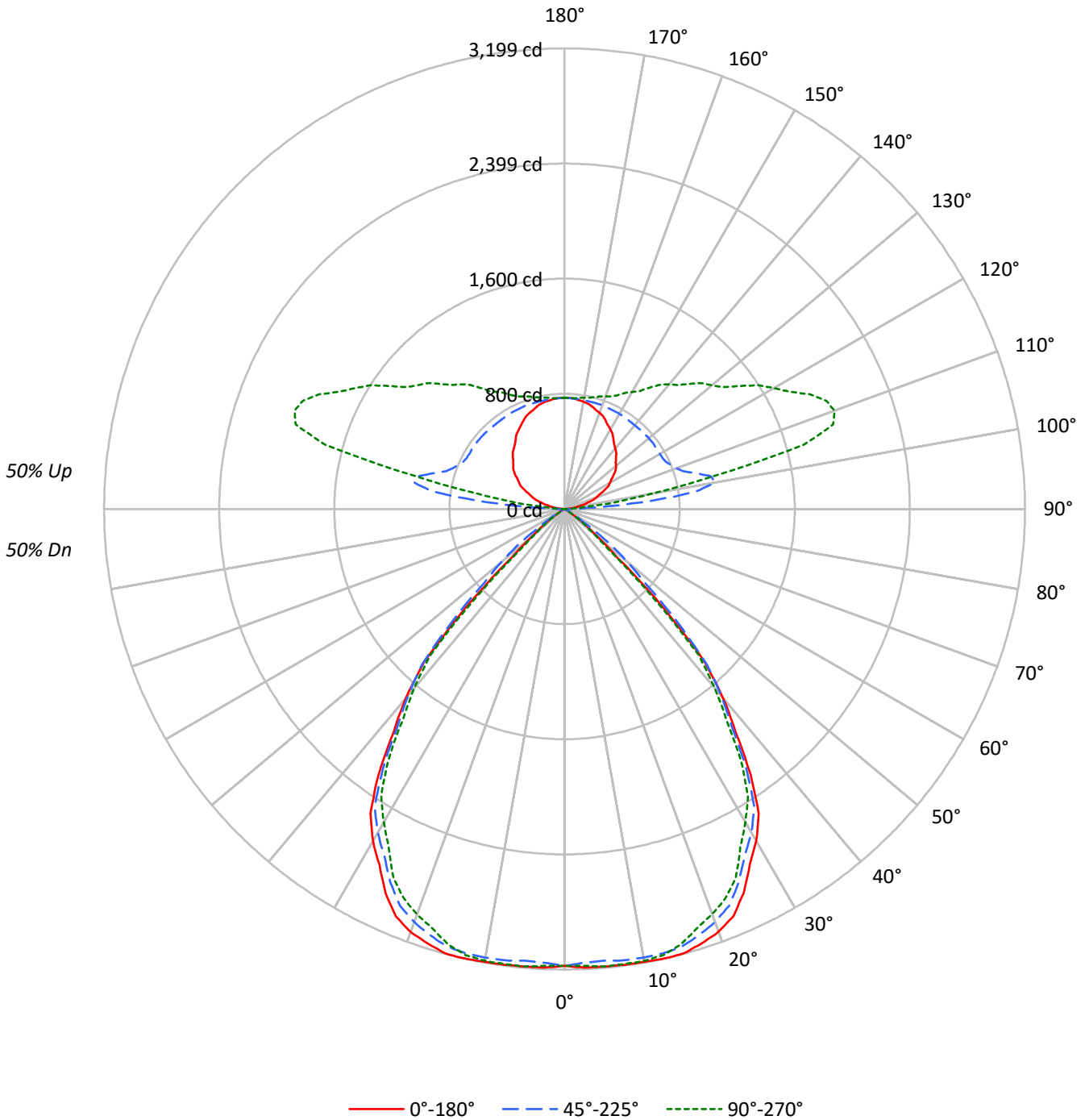
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9556.1 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 93.7  
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	50	30	10
RCR																				
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50		
1	100	96	93	90	92	89	87	84	76	74	72	64	63	62	53	52	51	46		
2	93	86	81	77	86	80	76	72	69	66	63	59	57	55	49	48	47	42		
3	86	78	72	67	79	73	67	63	63	59	56	54	51	49	45	44	42	38		
4	80	71	64	59	74	66	60	56	57	53	50	49	46	44	42	40	38	35		
5	74	64	57	52	69	60	54	49	53	48	44	46	42	39	39	37	35	32		
6	69	58	51	46	64	55	49	44	48	43	40	42	38	36	36	34	32	29		
7	64	53	46	41	60	50	44	39	44	39	36	39	35	32	34	31	29	27		
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	31	29	27	24		
9	56	45	38	34	52	43	37	32	38	33	30	33	30	27	29	26	24	22		
10	53	42	35	31	49	39	34	30	35	30	27	31	27	25	27	25	23	21		

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

	0°	45°	90°
0°	51245	51245	51245
5°	51705	51068	51705
10°	52367	51864	52257
15°	53422	52605	52316
20°	53728	52476	51471
25°	52426	50974	50206
30°	49644	48393	46820
35°	44396	43357	42147
40°	36157	35630	34176
45°	22071	25005	19881
50°	7201	13993	6335
55°	2457	4940	2536
60°	187	1424	61
65°	38	73	0
70°	0	47	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 25046 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.7	3.2
10°-20°	891.9	9.3
20°-30°	1318.1	13.8
30°-40°	1354.6	14.2
40°-50°	782.5	8.2
50°-60°	135.6	1.4
60°-70°	5.1	0.1
70°-80°	0.1	0.0
80°-90°	1.1	0.0
90°-100°	295.3	3.1
100°-110°	961.5	10.1
110°-120°	951.1	10.0
120°-130°	777.3	8.1
130°-140°	635.3	6.6
140°-150°	494.8	5.2
150°-160°	356.7	3.7
160°-170°	218.0	2.3
170°-180°	73.6	0.8
0°-30°	2513.7	26.3
0°-40°	3868.4	40.5
0°-60°	4786.4	50.1
0°-90°	4792.7	50.2
90°-120°	2208.0	23.1
90°-150°	4115.4	43.1
90°-180°	4764.0	49.9
0°-180°	9556.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3174	3174	3174	3174	3174	
5°	3190	3181	3151	3197	3190	305
15°	3196	3219	3147	3152	3130	900
25°	2943	2969	2861	2828	2818	1345
35°	2252	2253	2200	2166	2138	1386
45°	967	1097	1095	1037	871	739
55°	87	101	176	100	90	98
65°	1	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	3	7	6	6	2
95°	40	122	541	193	119	46
105°	163	236	952	1819	1723	174
115°	302	360	776	1599	1881	299
125°	420	468	765	1262	1488	374
135°	507	560	762	1090	1229	392
145°	593	636	760	938	1028	371
155°	676	698	764	840	872	311
165°	738	744	766	795	804	208
175°	769	769	769	775	773	73
180°	772	772	772	772	772	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3173.9	3173.9	3173.9	3173.9	3173.9
2.5°	3188.5	3179.5	3154.0	3183.0	3176.2
5°	3190.2	3180.9	3150.9	3196.8	3190.2
7.5°	3193.3	3187.5	3161.9	3197.9	3187.4
10°	3194.1	3195.0	3163.4	3194.9	3187.4
12.5°	3198.7	3207.9	3160.3	3185.5	3172.8
15°	3196.0	3219.4	3147.1	3152.3	3129.8
17.5°	3163.8	3197.5	3104.7	3082.0	3053.9
20°	3127.0	3160.7	3054.1	3023.7	2995.6
22.5°	3061.7	3098.5	2984.3	2950.9	2925.0
25°	2942.8	2969.1	2861.3	2828.5	2818.2
27.5°	2786.4	2795.7	2712.3	2669.0	2644.8
30°	2662.8	2661.0	2595.7	2546.0	2511.3
32.5°	2510.2	2519.6	2453.8	2407.2	2371.7
35°	2252.4	2253.4	2199.7	2165.5	2138.3
37.5°	1951.7	1947.0	1909.9	1863.9	1848.6
40°	1715.5	1722.0	1690.5	1638.4	1621.5
42.5°	1441.6	1484.9	1462.7	1401.2	1380.6
45°	966.6	1096.9	1095.1	1036.6	870.7
47.5°	494.6	657.7	755.8	592.0	397.2
50°	286.7	389.8	557.1	307.5	252.2
52.5°	181.6	230.7	396.0	199.9	167.8
55°	87.3	101.3	175.5	99.5	90.1
57.5°	31.8	47.4	77.9	48.4	34.1
60°	5.8	19.8	44.1	13.2	1.9
62.5°	1.9	5.5	25.7	3.4	1.2
65°	1.0	1.0	1.9	0.9	0.0
67.5°	0.0	0.9	1.0	0.0	0.0
70°	0.0	0.9	1.0	0.0	0.0
72.5°	0.0	0.2	0.2	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	1.3	1.1	1.1
90°	0.0	2.8	6.6	5.7	5.7
92.5°	13.7	49.1	157.1	51.8	39.9
95°	39.9	121.6	541.3	193.0	118.7
97.5°	75.0	158.2	918.7	559.5	341.5
100°	97.8	179.5	1060.8	945.9	613.5
102.5°	123.6	202.4	1043.3	1399.4	1064.0
105°	163.3	235.8	952.5	1819.3	1722.7
107.5°	206.3	274.4	866.3	1855.7	1958.1
110°	237.4	299.6	825.3	1810.5	1995.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	263.3	324.7	799.4	1728.9	1967.2
115°	302.0	360.5	775.9	1599.0	1881.3
117.5°	341.9	394.6	766.8	1480.1	1761.1
120°	364.7	416.7	764.5	1407.0	1679.1
122.5°	386.7	438.0	765.3	1343.5	1597.0
125°	419.8	468.0	765.4	1262.5	1488.2
127.5°	448.1	497.5	765.3	1201.8	1390.0
130°	466.3	516.4	764.5	1167.2	1335.3
132.5°	482.3	534.6	763.7	1135.0	1292.7
135°	507.1	560.1	761.7	1089.6	1228.9
137.5°	531.4	584.7	759.6	1043.5	1167.2
140°	548.9	600.0	758.8	1012.2	1129.2
142.5°	565.6	614.5	758.8	982.3	1086.6
145°	592.6	636.2	759.8	938.4	1027.6
147.5°	618.8	656.7	761.1	901.1	970.0
150°	636.3	669.7	762.6	878.8	937.3
152.5°	653.8	681.3	763.4	861.9	908.5
155°	676.2	698.5	764.5	840.2	871.8
157.5°	697.5	713.4	765.6	824.3	846.4
160°	710.4	723.4	766.4	814.3	831.9
162.5°	721.8	731.8	766.4	805.8	819.0
165°	737.9	744.4	766.4	795.1	804.4
167.5°	749.3	753.4	766.6	787.0	791.9
170°	756.9	758.8	767.3	781.6	783.5
172.5°	762.2	763.3	768.9	778.5	778.2
175°	769.2	769.2	769.2	774.9	773.0
177.5°	772.1	771.4	770.6	774.3	771.3
180°	772.1	772.1	772.1	772.1	772.1

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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	1.42	2.12	2.41	3.10	4.38	1.03	1.73	2.02	2.71	3.99
	3H	1.22	1.85	2.23	2.84	4.14	0.83	1.46	1.84	2.45	3.75
	4H	1.12	1.70	2.13	2.70	4.01	0.73	1.32	1.74	2.31	3.62
	6H	1.01	1.55	2.03	2.54	3.87	0.62	1.16	1.64	2.15	3.48
	8H	0.95	1.46	1.98	2.47	3.79	0.56	1.07	1.59	2.08	3.40
	12H	0.89	1.37	1.92	2.37	3.72	0.50	0.98	1.53	1.98	3.33
4H	2H	1.12	1.71	2.14	2.70	4.02	0.74	1.32	1.76	2.31	3.63
	3H	0.92	1.41	1.95	2.43	3.75	0.53	1.02	1.56	2.04	3.36
	4H	0.81	1.25	1.84	2.26	3.61	0.42	0.86	1.45	1.87	3.22
	6H	0.70	1.08	1.74	2.11	3.46	0.31	0.69	1.35	1.72	3.07
	8H	0.64	0.99	1.68	2.01	3.37	0.25	0.60	1.29	1.62	2.98
	12H	0.56	0.88	1.62	1.92	3.28	0.17	0.49	1.23	1.53	2.89
8H	4H	0.64	0.99	1.68	2.01	3.37	0.25	0.60	1.29	1.62	2.98
	6H	0.52	0.80	1.58	1.87	3.23	0.13	0.41	1.19	1.49	2.84
	8H	0.46	0.71	1.53	1.77	3.14	0.07	0.32	1.14	1.38	2.75
	12H	0.39	0.61	1.46	1.66	3.08	0.00	0.22	1.07	1.27	2.69
12H	4H	0.56	0.88	1.62	1.92	3.28	0.17	0.49	1.23	1.53	2.89
	6H	0.46	0.71	1.53	1.77	3.14	0.07	0.32	1.14	1.38	2.75
	8H	0.39	0.61	1.46	1.66	3.08	0.00	0.22	1.07	1.27	2.69