

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: P853558

Luminaire Tested: SQ2-BBM-125U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

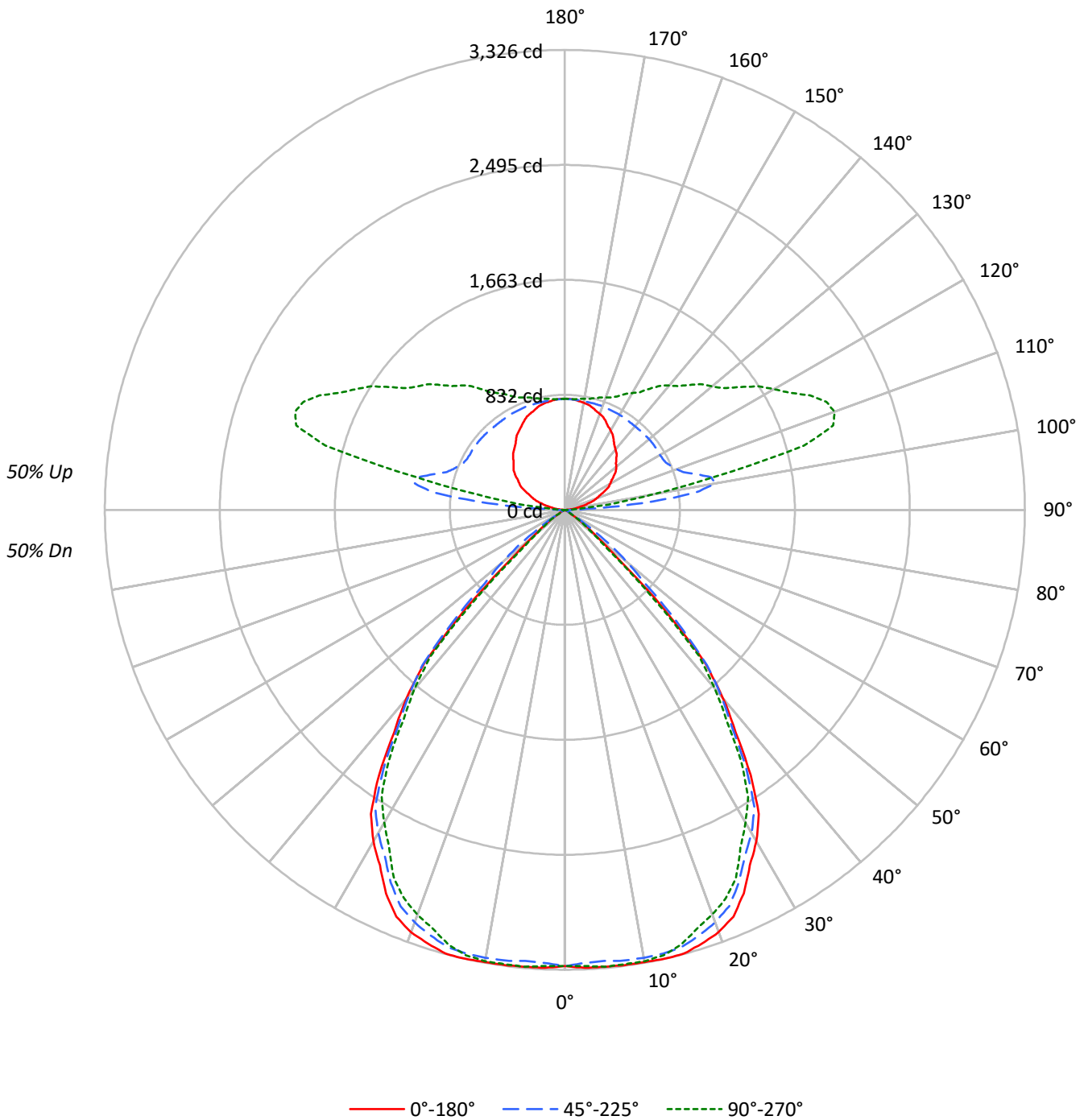
Test Method: LM-79-2019  
Report Number: P853558  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-125U-125D-935-UNV-STD-W-4  
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: 9935.7 lumens  
Efficiency: N/A  
Efficacy: 106.0 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	0
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°	53281	53281	53281
5°	53760	53097	53760
10°	54446	53923	54333
15°	55544	54694	54394
20°	55862	54560	53515
25°	54508	53000	52200
30°	51617	50315	48680
35°	46160	45080	43822
40°	37593	37047	35534
45°	22948	25998	20671
50°	7488	14549	6586
55°	2553	5134	2638
60°	194	1482	65
65°	38	76	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: 26042 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.8	3.2
10°-20°	927.3	9.3
20°-30°	1370.5	13.8
30°-40°	1408.5	14.2
40°-50°	813.5	8.2
50°-60°	141.0	1.4
60°-70°	5.3	0.1
70°-80°	0.1	0.0
80°-90°	1.2	0.0
90°-100°	307.1	3.1
100°-110°	999.7	10.1
110°-120°	988.9	10.0
120°-130°	808.2	8.1
130°-140°	660.5	6.6
140°-150°	514.5	5.2
150°-160°	370.8	3.7
160°-170°	226.7	2.3
170°-180°	76.5	0.8
0°-30°	2613.6	26.3
0°-40°	4022.1	40.5
0°-60°	4976.6	50.1
0°-90°	4983.1	50.2
90°-120°	2295.8	23.1
90°-150°	4278.9	43.1
90°-180°	4953.0	49.9
0°-180°	9935.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3300	3300	3300	3300	3300	
5°	3317	3307	3276	3324	3317	317
15°	3323	3347	3272	3278	3254	936
25°	3060	3087	2975	2941	2930	1399
35°	2342	2343	2287	2252	2223	1441
45°	1005	1140	1139	1078	905	768
55°	91	105	182	104	94	102
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°	42	126	563	201	123	48
105°	170	245	990	1892	1791	181
115°	314	375	807	1663	1956	311
125°	436	487	796	1313	1547	388
135°	527	582	792	1133	1278	407
145°	616	662	790	976	1068	386
155°	703	726	795	874	906	324
165°	767	774	797	827	836	216
175°	800	800	800	806	804	76
180°	803	803	803	803	803	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3300.0	3300.0	3300.0	3300.0	3300.0
2.5°	3315.2	3305.8	3279.3	3309.4	3302.4
5°	3317.0	3307.2	3276.1	3323.8	3317.0
7.5°	3320.1	3314.1	3287.4	3324.9	3314.0
10°	3320.9	3321.9	3289.0	3321.8	3314.0
12.5°	3325.7	3335.3	3285.8	3312.1	3298.8
15°	3322.9	3347.3	3272.1	3277.5	3254.1
17.5°	3289.4	3324.5	3228.0	3204.4	3175.2
20°	3251.2	3286.2	3175.4	3143.8	3114.6
22.5°	3183.4	3221.6	3102.8	3068.1	3041.2
25°	3059.7	3087.0	2975.0	2940.8	2930.1
27.5°	2897.0	2906.8	2820.1	2775.0	2749.9
30°	2768.6	2766.7	2698.8	2647.2	2611.1
32.5°	2609.9	2619.6	2551.3	2502.8	2465.9
35°	2341.9	2342.9	2287.1	2251.5	2223.3
37.5°	2029.3	2024.4	1985.8	1938.0	1922.0
40°	1783.6	1790.4	1757.7	1703.4	1685.9
42.5°	1498.9	1543.9	1520.8	1456.9	1435.5
45°	1005.0	1140.5	1138.6	1077.8	905.3
47.5°	514.2	683.9	785.8	615.5	412.9
50°	298.1	405.3	579.2	319.7	262.2
52.5°	188.8	239.9	411.8	207.8	174.5
55°	90.7	105.3	182.4	103.5	93.7
57.5°	33.1	49.3	81.0	50.3	35.5
60°	6.0	20.6	45.9	13.7	2.0
62.5°	2.0	5.7	26.7	3.5	1.2
65°	1.0	1.0	2.0	1.0	0.0
67.5°	0.0	1.0	1.0	0.0	0.0
70°	0.0	1.0	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	1.4	1.2	1.2
90°	0.0	2.9	6.9	5.9	5.9
92.5°	14.2	51.1	163.3	53.8	41.5
95°	41.5	126.4	562.8	200.7	123.4
97.5°	78.0	164.5	955.2	581.8	355.1
100°	101.7	186.7	1102.9	983.5	637.9
102.5°	128.6	210.4	1084.8	1455.0	1106.3
105°	169.8	245.1	990.4	1891.6	1791.2
107.5°	214.5	285.3	900.7	1929.4	2035.8
110°	246.9	311.5	858.1	1882.4	2074.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	273.7	337.6	831.2	1797.6	2045.3
115°	314.0	374.8	806.7	1662.6	1956.1
117.5°	355.5	410.3	797.2	1538.9	1831.1
120°	379.2	433.2	794.9	1462.9	1745.7
122.5°	402.1	455.4	795.7	1396.9	1660.4
125°	436.4	486.6	795.9	1312.7	1547.3
127.5°	465.9	517.2	795.7	1249.6	1445.2
130°	484.8	537.0	794.9	1213.5	1388.3
132.5°	501.4	555.9	794.1	1180.1	1344.1
135°	527.3	582.3	791.9	1132.9	1277.7
137.5°	552.6	608.0	789.7	1084.9	1213.5
140°	570.7	623.8	788.9	1052.4	1174.0
142.5°	588.1	638.9	788.9	1021.3	1129.8
145°	616.1	661.5	789.9	975.7	1068.4
147.5°	643.4	682.8	791.3	936.9	1008.5
150°	661.6	696.3	792.9	913.7	974.6
152.5°	679.7	708.3	793.7	896.1	944.6
155°	703.0	726.2	794.9	873.6	906.4
157.5°	725.2	741.8	796.1	857.0	880.0
160°	738.6	752.1	796.8	846.6	865.0
162.5°	750.4	760.9	796.8	837.8	851.5
165°	767.2	774.0	796.8	826.7	836.3
167.5°	779.1	783.3	797.0	818.3	823.3
170°	787.0	788.9	797.8	812.7	814.6
172.5°	792.5	793.7	799.4	809.5	809.1
175°	799.8	799.8	799.8	805.7	803.8
177.5°	802.8	802.0	801.2	805.1	802.0
180°	802.8	802.8	802.8	802.8	802.8

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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	1.55	2.26	2.54	3.23	4.52	1.16	1.87	2.16	2.85	4.13
	3H	1.36	1.98	2.36	2.97	4.27	0.97	1.59	1.97	2.58	3.89
	4H	1.25	1.84	2.27	2.83	4.14	0.86	1.45	1.88	2.44	3.76
	6H	1.14	1.68	2.16	2.68	4.00	0.75	1.29	1.78	2.29	3.61
	8H	1.08	1.59	2.11	2.60	3.92	0.69	1.20	1.72	2.21	3.53
	12H	1.02	1.50	2.05	2.51	3.85	0.63	1.12	1.66	2.12	3.46
4H	2H	1.26	1.85	2.28	2.84	4.15	0.87	1.46	1.89	2.45	3.77
	3H	1.06	1.54	2.08	2.56	3.89	0.67	1.15	1.70	2.18	3.50
	4H	0.94	1.38	1.98	2.40	3.75	0.56	1.00	1.59	2.01	3.36
	6H	0.83	1.21	1.88	2.24	3.59	0.45	0.82	1.49	1.86	3.21
	8H	0.77	1.12	1.81	2.15	3.51	0.38	0.73	1.43	1.76	3.12
	12H	0.70	1.01	1.75	2.06	3.42	0.31	0.63	1.37	1.67	3.03
8H	4H	0.77	1.12	1.81	2.15	3.51	0.38	0.73	1.43	1.76	3.12
	6H	0.65	0.94	1.71	2.01	3.37	0.26	0.55	1.33	1.62	2.98
	8H	0.59	0.84	1.66	1.90	3.27	0.21	0.46	1.28	1.51	2.89
	12H	0.52	0.74	1.59	1.79	3.21	0.14	0.36	1.21	1.41	2.83
12H	4H	0.70	1.01	1.75	2.06	3.42	0.31	0.63	1.37	1.67	3.03
	6H	0.59	0.84	1.66	1.90	3.28	0.21	0.46	1.28	1.51	2.89
	8H	0.52	0.74	1.59	1.79	3.21	0.14	0.36	1.21	1.41	2.83