

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1036194

Luminaire Tested: SQ4R-BB-125D-B40-1D-UNV

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036194  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P518604)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-BB-125D-B40-1D-UNV  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 1250 LUMENS PER FOOT DC

Light Source: -  
Ballast/Driver: -

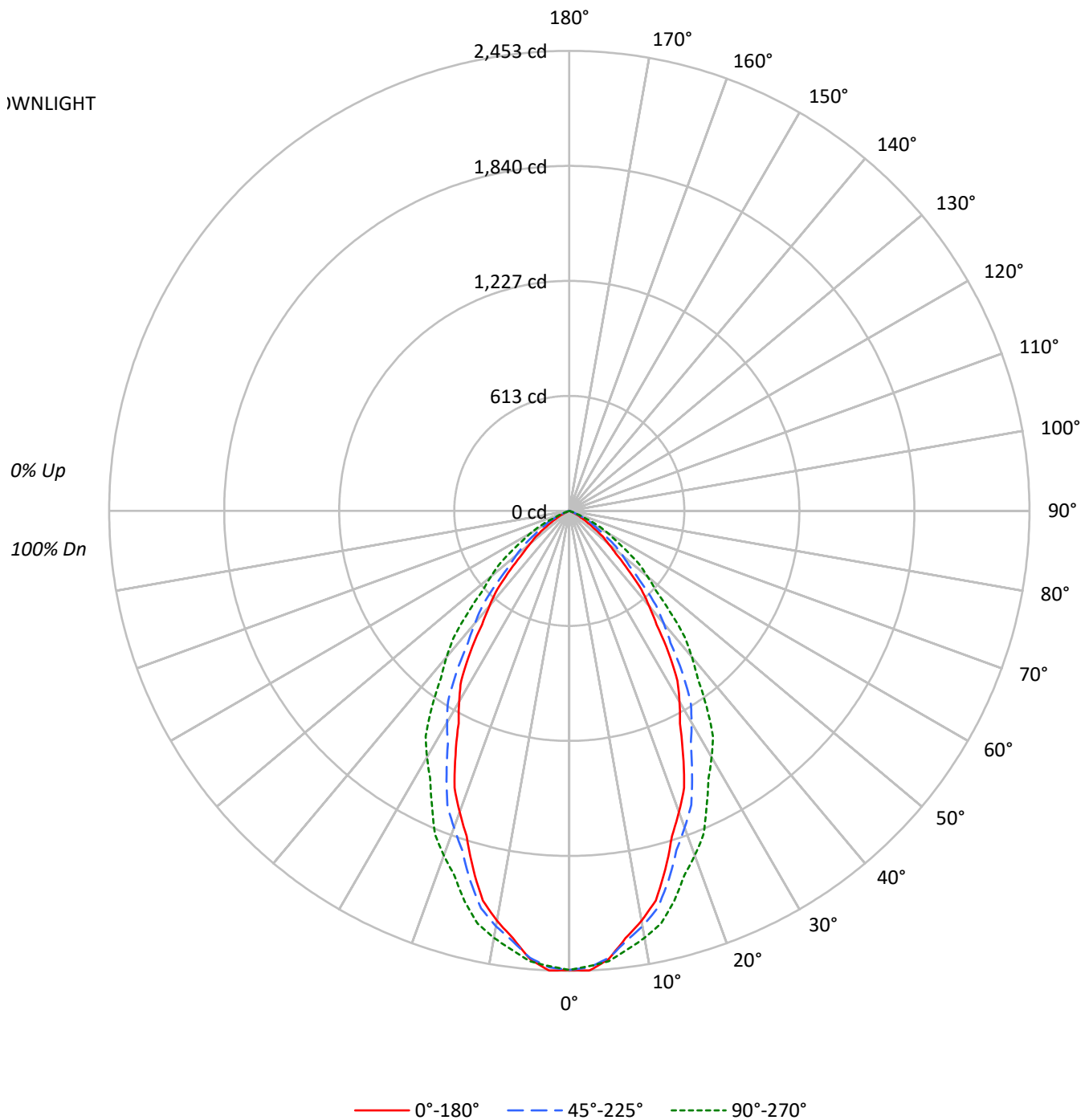
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2919.8 lumens  
Efficiency: N/A  
Efficacy: 63.8 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 45.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: SQ4R-BB-125D-B40-1D-UNV

### 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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99	99	98	96	96	94	93	96	94	93	91
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	86	84	89	86	84	82
3	99	91	85	81	97	90	84	80	87	82	79	85	81	77	82	79	76	82	79	76	74
4	93	84	77	72	91	83	76	72	80	75	71	78	74	70	76	72	69	76	72	69	67
5	87	77	70	65	85	76	70	65	74	68	64	72	67	64	71	66	63	71	66	63	61
6	82	71	64	59	80	70	64	59	69	63	58	67	62	58	66	61	58	66	61	58	56
7	77	66	59	54	75	65	59	54	64	58	53	62	57	53	61	56	53	61	56	53	51
8	72	61	54	50	71	61	54	49	59	53	49	58	53	49	57	52	49	57	52	49	47
9	68	57	50	46	67	57	50	46	56	50	46	55	49	45	54	49	45	54	49	45	44
10	65	54	47	42	63	53	47	42	52	46	42	51	46	42	51	46	42	51	46	42	41

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

	0°	45°	90°
0°	22583	22583	22583
5°	22219	22164	22328
10°	20789	21067	21655
15°	18900	19500	20586
20°	16778	17648	19194
25°	14609	15767	17636
30°	12516	13889	16160
35°	10376	11791	14376
40°	7972	9428	12250
45°	5765	7138	9858
50°	3926	5318	7820
55°	2553	3848	6075
60°	1465	2711	4394
65°	386	1657	2222
70°	197	513	634
75°	86	39	0
80°	58	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9858 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.4	7.7
10°-20°	571.2	19.6
20°-30°	715.1	24.5
30°-40°	660.5	22.6
40°-50°	443.8	15.2
50°-60°	229.3	7.9
60°-70°	71.8	2.5
70°-80°	4.5	0.2
80°-90°	0.1	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1509.7	51.7
0°-40°	2170.3	74.3
0°-60°	2843.4	97.4
0°-90°	2919.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2919.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2448	2448	2448	2448	2448	
5°	2399	2375	2393	2402	2411	222
15°	1979	1972	2042	2110	2155	551
25°	1435	1447	1549	1655	1732	658
35°	921	944	1047	1170	1276	571
45°	442	468	547	654	756	347
55°	159	185	239	307	378	148
65°	18	34	76	91	102	30
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1036194  
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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2447.7	2447.7	2447.7	2447.7	2447.7
2.5°	2453.3	2430.2	2436.1	2436.1	2429.7
5°	2399.1	2374.8	2393.2	2401.5	2410.9
7.5°	2297.8	2278.8	2314.1	2340.4	2359.8
10°	2219.0	2202.9	2248.7	2284.7	2311.5
12.5°	2128.1	2115.5	2171.0	2220.6	2254.6
15°	1978.7	1971.8	2041.5	2109.8	2155.2
17.5°	1818.7	1818.4	1897.8	1983.1	2037.5
20°	1708.8	1712.3	1797.5	1891.4	1954.9
22.5°	1598.9	1606.9	1698.1	1796.0	1868.8
25°	1435.1	1446.6	1548.8	1655.0	1732.4
27.5°	1278.0	1294.9	1402.4	1512.3	1606.9
30°	1174.8	1194.4	1303.7	1419.6	1516.9
32.5°	1073.1	1096.8	1203.2	1326.0	1424.9
35°	921.2	944.4	1046.9	1169.9	1276.4
37.5°	764.3	786.9	886.9	1008.3	1123.3
40°	661.9	687.4	782.8	900.3	1017.1
42.5°	569.1	594.6	684.2	799.7	910.1
45°	441.8	468.3	547.1	653.6	755.5
47.5°	336.2	364.9	434.0	530.6	623.3
50°	273.5	302.4	370.5	455.5	544.8
52.5°	223.3	251.5	312.8	392.8	474.6
55°	158.7	185.3	239.2	307.2	377.7
57.5°	109.6	132.7	180.9	237.5	293.0
60°	79.4	101.4	146.9	192.7	238.1
62.5°	52.8	72.9	117.5	152.8	183.2
65°	17.7	34.0	75.9	91.4	101.8
67.5°	9.1	10.8	39.6	42.1	45.5
70°	7.3	7.3	19.0	20.1	23.5
72.5°	5.1	5.1	7.5	9.7	10.5
75°	2.4	2.4	1.1	0.0	0.0
77.5°	1.1	1.1	1.1	0.0	0.0
80°	1.1	1.1	0.0	0.0	0.0
82.5°	0.3	0.3	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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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	10.76	11.99	11.13	12.30	12.62	15.34	16.57	15.71	16.89	17.20
	3H	10.64	11.72	11.02	12.05	12.42	15.32	16.40	15.70	16.73	17.10
	4H	10.56	11.56	10.96	11.91	12.30	15.24	16.24	15.64	16.59	16.98
	6H	10.47	11.39	10.89	11.76	12.16	15.15	16.07	15.56	16.44	16.83
	8H	10.43	11.29	10.86	11.68	12.09	15.10	15.97	15.53	16.36	16.77
	12H	10.38	11.21	10.81	11.59	12.02	15.05	15.88	15.49	16.26	16.69
4H	2H	11.12	12.13	11.53	12.48	12.86	15.28	16.28	15.68	16.63	17.02
	3H	11.01	11.82	11.43	12.23	12.63	15.26	16.07	15.67	16.47	16.88
	4H	10.92	11.64	11.36	12.06	12.50	15.16	15.88	15.60	16.30	16.74
	6H	10.83	11.45	11.30	11.89	12.36	15.07	15.68	15.53	16.13	16.60
	8H	10.77	11.34	11.24	11.79	12.26	15.01	15.58	15.48	16.03	16.50
	12H	10.72	11.22	11.20	11.70	12.18	14.95	15.46	15.44	15.94	16.42
8H	4H	10.78	11.35	11.25	11.80	12.27	15.01	15.58	15.48	16.03	16.50
	6H	10.67	11.13	11.17	11.63	12.11	14.90	15.36	15.40	15.86	16.34
	8H	10.60	11.02	11.13	11.53	12.03	14.83	15.25	15.35	15.76	16.26
	12H	10.55	10.92	11.07	11.41	11.99	14.78	15.15	15.29	15.64	16.22
12H	4H	10.72	11.23	11.21	11.71	12.19	14.95	15.46	15.44	15.94	16.42
	6H	10.60	11.02	11.12	11.53	12.03	14.83	15.25	15.35	15.76	16.26
	8H	10.55	10.92	11.07	11.41	11.99	14.78	15.15	15.29	15.64	16.22