

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: P853509

Luminaire Tested: SQ2-BBM-050U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853509  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-050U-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

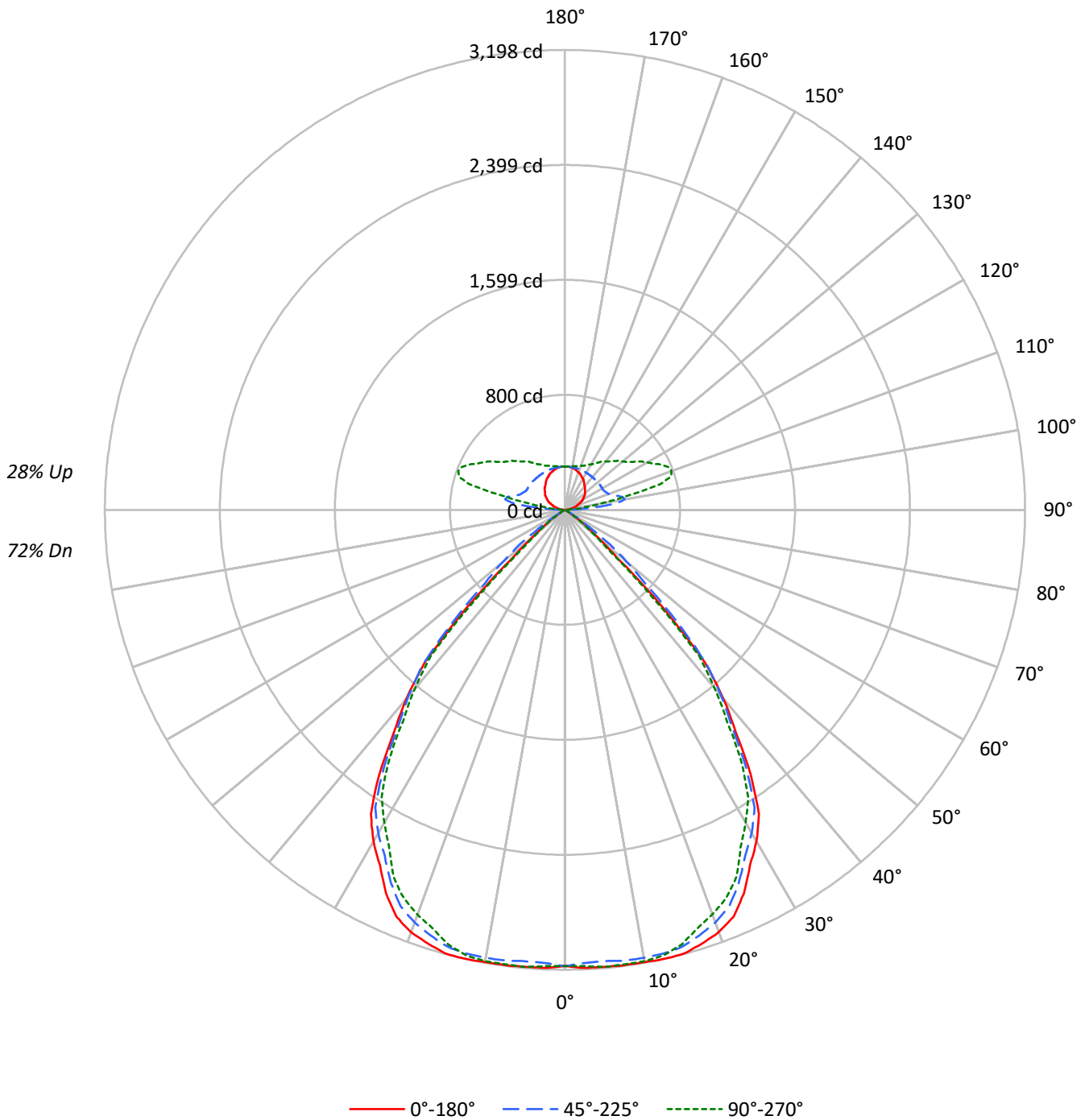
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6666.5 lumens  
Efficiency: N/A  
Efficacy: 103.2 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: Semi-Direct  
  
Input Watts (W): 64.6  
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	0	
RCR																						
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	72	72	72	72	
1	105	102	99	96	100	97	95	92	88	86	84	80	78	77	72	71	70	66	66	66	66	
2	99	93	88	84	94	89	84	81	81	78	75	74	71	69	67	65	64	60	60	60	60	
3	92	84	78	74	87	81	76	71	74	70	67	68	65	62	62	60	58	55	55	55	55	
4	86	77	70	65	82	74	68	64	68	63	60	63	59	56	58	55	53	50	50	50	50	
5	80	70	64	58	76	68	62	57	63	58	54	58	54	51	54	50	48	45	45	45	45	
6	75	65	58	53	71	62	56	51	58	53	49	54	49	46	50	46	44	42	42	42	42	
7	70	59	52	48	67	57	51	46	53	48	44	50	45	42	46	43	40	38	38	38	38	
8	66	55	48	43	63	53	47	42	50	44	40	46	42	39	43	40	37	35	35	35	35	
9	62	51	44	39	59	49	43	39	46	41	37	43	39	36	40	37	34	32	32	32	32	
10	58	47	41	36	56	46	40	36	43	38	34	40	36	33	38	34	31	30	30	30	30	

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

	0°	45°	90°
0°	51236	51236	51236
5°	51695	51059	51695
10°	52357	51854	52246
15°	53412	52595	52306
20°	53716	52465	51460
25°	52417	50965	50195
30°	49635	48384	46812
35°	44388	43349	42139
40°	36149	35624	34170
45°	22066	24998	19877
50°	7201	13991	6332
55°	2455	4937	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: 25042 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.7	4.6
10°-20°	891.7	13.4
20°-30°	1317.9	19.8
30°-40°	1354.4	20.3
40°-50°	782.3	11.7
50°-60°	135.5	2.0
60°-70°	5.1	0.1
70°-80°	0.1	0.0
80°-90°	0.5	0.0
90°-100°	120.3	1.8
100°-110°	381.5	5.7
110°-120°	374.1	5.6
120°-130°	304.4	4.6
130°-140°	248.2	3.7
140°-150°	193.5	2.9
150°-160°	139.4	2.1
160°-170°	85.2	1.3
170°-180°	28.8	0.4
0°-30°	2513.3	37.7
0°-40°	3867.7	58.0
0°-60°	4785.5	71.8
0°-90°	4791.2	71.9
90°-120°	875.9	13.1
90°-150°	1622.1	24.3
90°-180°	1875.0	28.1
0°-180°	6666.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3173	3173	3173	3173	3173	
5°	3190	3180	3150	3196	3190	305
15°	3195	3219	3146	3152	3129	900
25°	2942	2968	2861	2828	2818	1345
35°	2252	2253	2199	2165	2138	1386
45°	966	1097	1095	1036	870	739
55°	87	101	175	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	1	3	3	3	1
95°	16	49	218	81	52	19
105°	66	93	376	716	687	70
115°	119	141	304	631	743	117
125°	164	184	299	495	583	146
135°	198	218	297	426	480	153
145°	232	249	297	367	400	145
155°	264	273	298	328	341	122
165°	288	290	299	311	313	81
175°	301	300	301	303	302	29
180°	302	302	302	302	302	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3173.3	3173.3	3173.3	3173.3	3173.3
2.5°	3187.9	3178.9	3153.4	3182.4	3175.6
5°	3189.6	3180.2	3150.3	3196.2	3189.6
7.5°	3192.7	3186.9	3161.2	3197.2	3186.7
10°	3193.5	3194.4	3162.8	3194.2	3186.7
12.5°	3198.1	3207.2	3159.7	3184.9	3172.2
15°	3195.4	3218.8	3146.5	3151.7	3129.2
17.5°	3163.2	3196.9	3104.1	3081.4	3053.3
20°	3126.3	3160.1	3053.5	3023.1	2995.0
22.5°	3061.2	3097.9	2983.7	2950.3	2924.4
25°	2942.3	2968.5	2860.8	2828.0	2817.6
27.5°	2785.8	2795.2	2711.8	2668.5	2644.3
30°	2662.3	2660.5	2595.2	2545.5	2510.9
32.5°	2509.7	2519.1	2453.3	2406.7	2371.3
35°	2252.0	2252.9	2199.3	2165.1	2137.9
37.5°	1951.4	1946.7	1909.6	1863.6	1848.2
40°	1715.1	1721.7	1690.2	1638.0	1621.2
42.5°	1441.3	1484.6	1462.4	1401.0	1380.3
45°	966.4	1096.7	1094.8	1036.4	870.5
47.5°	494.5	657.6	755.7	591.9	397.1
50°	286.7	389.8	557.0	307.4	252.1
52.5°	181.6	230.7	395.9	199.8	167.8
55°	87.2	101.3	175.4	99.5	90.1
57.5°	31.8	47.4	77.8	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	0.2	0.6	0.6	0.6
90°	0.0	0.9	2.8	2.8	2.8
92.5°	5.3	21.1	67.4	22.5	15.8
95°	16.1	48.6	218.4	81.0	52.2
97.5°	30.0	63.1	370.0	231.2	141.9
100°	39.9	71.5	421.7	384.4	249.8
102.5°	50.5	80.6	412.6	564.5	432.1
105°	66.5	93.4	376.1	716.4	686.6
107.5°	82.4	107.3	341.3	732.2	772.3
110°	93.1	117.2	323.9	714.0	788.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	103.7	126.4	314.0	682.5	776.9
115°	118.7	141.0	303.9	631.2	742.7
117.5°	133.3	154.5	299.9	581.9	694.2
120°	142.5	162.9	299.2	551.4	660.0
122.5°	151.6	171.3	299.2	526.9	628.1
125°	164.3	183.8	299.2	494.9	583.1
127.5°	175.5	194.3	299.2	470.1	545.3
130°	182.3	201.8	299.2	455.5	523.3
132.5°	189.2	208.7	298.4	444.0	505.1
135°	198.5	218.0	297.3	425.7	479.6
137.5°	207.6	228.0	297.1	408.3	456.4
140°	213.7	234.1	296.3	396.1	439.7
142.5°	221.3	241.0	297.1	383.8	424.5
145°	231.7	249.4	297.3	367.3	399.8
147.5°	242.2	257.2	297.4	352.8	379.3
150°	249.8	261.8	298.2	344.3	365.6
152.5°	255.9	266.4	298.2	337.4	355.0
155°	264.0	273.3	298.2	327.9	340.9
157.5°	272.8	279.1	299.2	322.2	331.1
160°	277.3	282.9	299.2	318.3	325.8
162.5°	281.9	286.0	299.2	315.2	320.4
165°	287.8	290.5	299.2	310.6	313.4
167.5°	293.3	294.0	300.1	307.4	309.8
170°	296.3	296.3	300.1	305.8	306.8
172.5°	297.8	298.6	300.1	304.3	304.5
175°	301.1	300.1	301.1	302.9	302.0
177.5°	302.0	301.3	301.2	302.7	301.2
180°	302.0	302.0	302.0	302.0	302.0



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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	3.35	4.18	4.13	4.95	5.89	2.96	3.79	3.74	4.57	5.50
	3H	3.16	3.90	3.96	4.68	5.65	2.77	3.51	3.57	4.29	5.26
	4H	3.06	3.75	3.88	4.54	5.52	2.67	3.36	3.49	4.15	5.13
	6H	2.96	3.58	3.78	4.39	5.38	2.57	3.20	3.39	4.00	4.99
	8H	2.90	3.49	3.73	4.31	5.30	2.51	3.10	3.34	3.92	4.91
	12H	2.84	3.40	3.68	4.21	5.23	2.45	3.02	3.29	3.83	4.84
4H	2H	3.07	3.75	3.89	4.55	5.53	2.68	3.37	3.50	4.16	5.14
	3H	2.88	3.44	3.70	4.27	5.26	2.49	3.05	3.31	3.88	4.87
	4H	2.76	3.27	3.60	4.10	5.12	2.38	2.88	3.21	3.71	4.73
	6H	2.66	3.09	3.51	3.94	4.97	2.27	2.70	3.12	3.55	4.58
	8H	2.59	2.99	3.45	3.84	4.88	2.20	2.61	3.06	3.45	4.49
	12H	2.52	2.88	3.40	3.75	4.79	2.14	2.49	3.01	3.36	4.40
8H	4H	2.59	2.99	3.45	3.84	4.88	2.20	2.61	3.06	3.45	4.49
	6H	2.47	2.80	3.35	3.69	4.73	2.08	2.41	2.97	3.30	4.34
	8H	2.41	2.70	3.30	3.58	4.64	2.02	2.31	2.91	3.20	4.25
	12H	2.34	2.60	3.23	3.47	4.59	1.96	2.21	2.85	3.08	4.20
12H	4H	2.52	2.88	3.40	3.75	4.79	2.14	2.49	3.01	3.36	4.40
	6H	2.41	2.70	3.30	3.58	4.64	2.02	2.31	2.91	3.20	4.25
	8H	2.34	2.60	3.23	3.47	4.59	1.96	2.21	2.85	3.08	4.20