

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: P853522

Luminaire Tested: SQ2-BBM-075U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853522  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-075U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

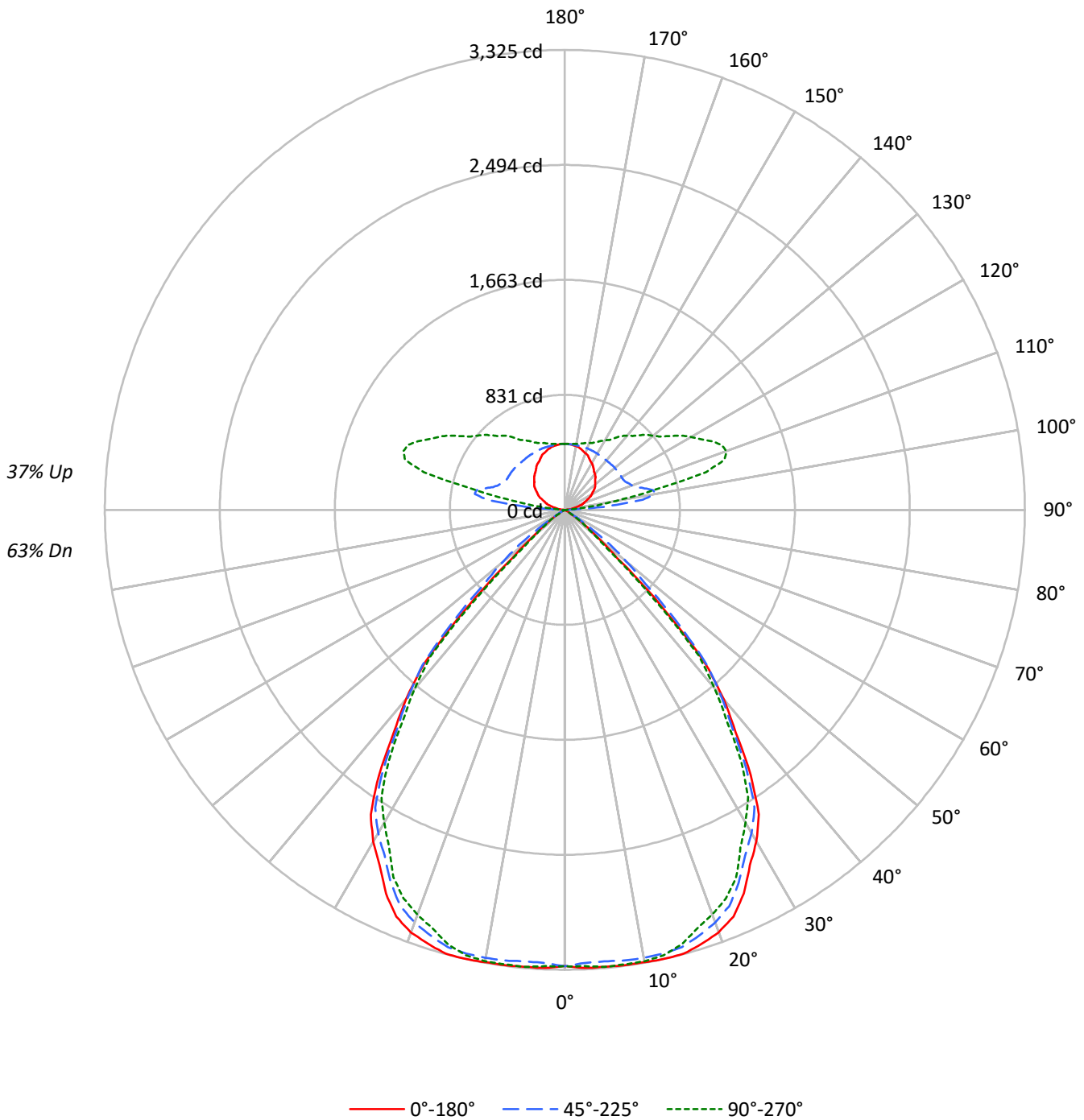
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7934.7 lumens  
Efficiency: N/A  
Efficacy: 108.5 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): 73.1  
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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63		
1	103	100	97	94	97	94	91	89	83	81	79	73	72	70	64	63	62	58		
2	96	90	85	81	90	85	81	77	76	73	70	67	65	63	59	58	56	53		
3	89	82	76	71	84	77	72	68	69	65	62	62	59	57	55	53	51	48		
4	83	74	68	63	78	71	65	60	64	59	56	57	54	51	51	49	47	44		
5	78	68	61	56	73	64	58	54	58	54	50	53	49	46	47	45	42	40		
6	72	62	55	50	68	59	53	48	54	49	45	49	45	42	44	41	39	36		
7	68	57	50	45	64	54	48	44	50	45	41	45	41	38	41	38	35	33		
8	63	52	45	41	60	50	44	40	46	41	37	42	38	35	38	35	33	31		
9	59	48	42	37	56	46	40	36	43	38	34	39	35	32	36	32	30	28		
10	56	45	38	34	53	43	37	33	40	35	31	36	32	29	33	30	28	26		

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

	0°	45°	90°
0°	53276	53276	53276
5°	53754	53091	53754
10°	54441	53918	54326
15°	55539	54689	54389
20°	55855	54555	53508
25°	54503	52994	52194
30°	51611	50312	48675
35°	46156	45074	43816
40°	37589	37043	35529
45°	22946	25994	20669
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: 26037 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.8	4.0
10°-20°	927.2	11.7
20°-30°	1370.3	17.3
30°-40°	1408.3	17.7
40°-50°	813.5	10.3
50°-60°	140.9	1.8
60°-70°	5.3	0.1
70°-80°	0.1	0.0
80°-90°	0.6	0.0
90°-100°	180.4	2.3
100°-110°	597.9	7.5
110°-120°	593.4	7.5
120°-130°	483.3	6.1
130°-140°	392.8	5.0
140°-150°	305.1	3.8
150°-160°	219.8	2.8
160°-170°	134.6	1.7
170°-180°	45.5	0.6
0°-30°	2613.3	32.9
0°-40°	4021.6	50.7
0°-60°	4976.0	62.7
0°-90°	4982.0	62.8
90°-120°	1371.7	17.3
90°-150°	2552.9	32.2
90°-180°	2953.0	37.2
0°-180°	7934.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3300	3300	3300	3300	3300	
5°	3317	3307	3276	3323	3317	317
15°	3323	3347	3272	3277	3254	936
25°	3059	3087	2975	2940	2930	1399
35°	2342	2343	2287	2251	2223	1441
45°	1005	1140	1138	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	1	3	4	4	1
95°	26	76	327	117	78	29
105°	105	149	598	1129	1056	110
115°	187	223	482	1003	1173	184
125°	261	290	473	788	929	232
135°	312	344	469	676	763	241
145°	362	389	468	582	637	227
155°	414	428	471	520	539	191
165°	454	459	473	492	497	128
175°	475	475	476	479	478	45
180°	477	477	477	477	477	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3299.7	3299.7	3299.7	3299.7	3299.7
2.5°	3314.8	3305.5	3278.9	3309.1	3302.1
5°	3316.6	3306.9	3275.7	3323.4	3316.6
7.5°	3319.8	3313.8	3287.1	3324.5	3313.6
10°	3320.6	3321.6	3288.7	3321.4	3313.6
12.5°	3325.4	3334.9	3285.5	3311.7	3298.5
15°	3322.6	3347.0	3271.8	3277.2	3253.8
17.5°	3289.1	3324.2	3227.7	3204.1	3174.9
20°	3250.8	3285.9	3175.1	3143.5	3114.2
22.5°	3183.0	3221.2	3102.5	3067.8	3040.9
25°	3059.4	3086.7	2974.7	2940.5	2929.8
27.5°	2896.7	2906.5	2819.8	2774.7	2749.6
30°	2768.3	2766.4	2698.6	2646.9	2610.8
32.5°	2609.6	2619.4	2551.0	2502.5	2465.7
35°	2341.7	2342.6	2286.8	2251.3	2223.0
37.5°	2029.0	2024.2	1985.6	1937.8	1921.8
40°	1783.4	1790.2	1757.5	1703.3	1685.7
42.5°	1498.7	1543.7	1520.6	1456.7	1435.3
45°	1004.9	1140.3	1138.4	1077.7	905.2
47.5°	514.2	683.8	785.7	615.5	412.9
50°	298.1	405.3	579.2	319.7	262.2
52.5°	188.8	239.9	411.7	207.8	174.5
55°	90.7	105.3	182.4	103.5	93.7
57.5°	33.1	49.3	80.9	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	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.0	3.9	3.9
92.5°	7.9	30.5	89.9	29.1	24.5
95°	25.7	75.9	326.8	116.6	78.0
97.5°	47.2	99.7	570.5	332.7	210.3
100°	62.2	112.4	660.6	567.4	376.2
102.5°	78.8	127.5	655.0	867.1	655.0
105°	104.7	149.1	598.4	1128.9	1055.5
107.5°	131.1	170.7	544.1	1155.5	1211.3
110°	146.1	185.7	516.4	1129.2	1242.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	161.9	200.7	499.8	1082.5	1226.4
115°	186.6	223.3	481.9	1003.1	1173.0
117.5°	211.1	243.7	475.3	927.3	1105.5
120°	226.1	258.0	473.0	879.8	1052.6
122.5°	239.5	270.6	473.0	840.7	1000.4
125°	260.7	289.6	473.0	788.2	929.1
127.5°	278.1	306.4	471.8	748.4	868.9
130°	288.3	318.3	471.0	725.2	833.4
132.5°	297.8	328.5	470.2	706.0	803.3
135°	312.0	343.9	469.0	676.4	763.3
137.5°	327.4	358.1	467.8	647.7	724.4
140°	337.7	367.6	467.0	628.6	699.1
142.5°	347.2	376.3	467.8	609.5	672.2
145°	362.4	389.4	468.0	581.8	636.9
147.5°	378.8	401.4	468.2	558.4	599.4
150°	389.0	409.3	469.0	544.8	579.6
152.5°	398.5	418.0	469.8	533.6	561.4
155°	413.7	428.2	471.0	519.8	539.1
157.5°	428.5	439.7	472.2	510.0	523.7
160°	436.4	446.1	473.0	502.8	513.4
162.5°	444.3	451.7	473.0	498.0	506.3
165°	454.2	459.0	473.0	491.8	496.7
167.5°	463.3	465.8	474.0	486.3	488.8
170°	468.0	469.0	474.0	483.8	484.8
172.5°	471.2	472.2	474.7	481.5	481.7
175°	474.9	474.9	475.9	478.9	477.9
177.5°	476.9	476.9	476.1	477.7	476.1
180°	476.9	476.9	476.9	476.9	476.9

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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	2.71	3.48	3.59	4.35	5.44	2.33	3.10	3.20	3.97	5.06
	3H	2.52	3.21	3.41	4.09	5.20	2.14	2.82	3.03	3.70	4.82
	4H	2.42	3.06	3.33	3.94	5.07	2.03	2.67	2.94	3.56	4.69
	6H	2.31	2.90	3.23	3.79	4.93	1.92	2.51	2.84	3.40	4.54
	8H	2.25	2.81	3.18	3.72	4.85	1.87	2.42	2.79	3.33	4.47
	12H	2.19	2.72	3.12	3.62	4.78	1.81	2.33	2.73	3.23	4.39
4H	2H	2.43	3.07	3.34	3.95	5.08	2.04	2.68	2.95	3.57	4.70
	3H	2.23	2.75	3.15	3.67	4.81	1.84	2.37	2.76	3.29	4.43
	4H	2.12	2.59	3.05	3.51	4.68	1.73	2.21	2.66	3.12	4.29
	6H	2.01	2.41	2.95	3.35	4.52	1.62	2.03	2.56	2.96	4.14
	8H	1.94	2.32	2.89	3.25	4.43	1.56	1.94	2.50	2.87	4.05
	12H	1.87	2.21	2.83	3.16	4.35	1.49	1.82	2.45	2.77	3.96
8H	4H	1.94	2.32	2.89	3.25	4.43	1.56	1.94	2.50	2.87	4.05
	6H	1.83	2.13	2.79	3.11	4.29	1.44	1.75	2.40	2.72	3.90
	8H	1.76	2.04	2.74	3.00	4.20	1.38	1.65	2.35	2.61	3.81
	12H	1.70	1.94	2.67	2.89	4.14	1.31	1.55	2.28	2.51	3.76
12H	4H	1.87	2.21	2.83	3.16	4.35	1.49	1.82	2.45	2.77	3.96
	6H	1.76	2.04	2.74	3.00	4.20	1.38	1.65	2.35	2.61	3.81
	8H	1.70	1.94	2.67	2.89	4.14	1.31	1.55	2.28	2.51	3.76