

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: P853521

Luminaire Tested: SQ2-BBM-075U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853521  
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-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

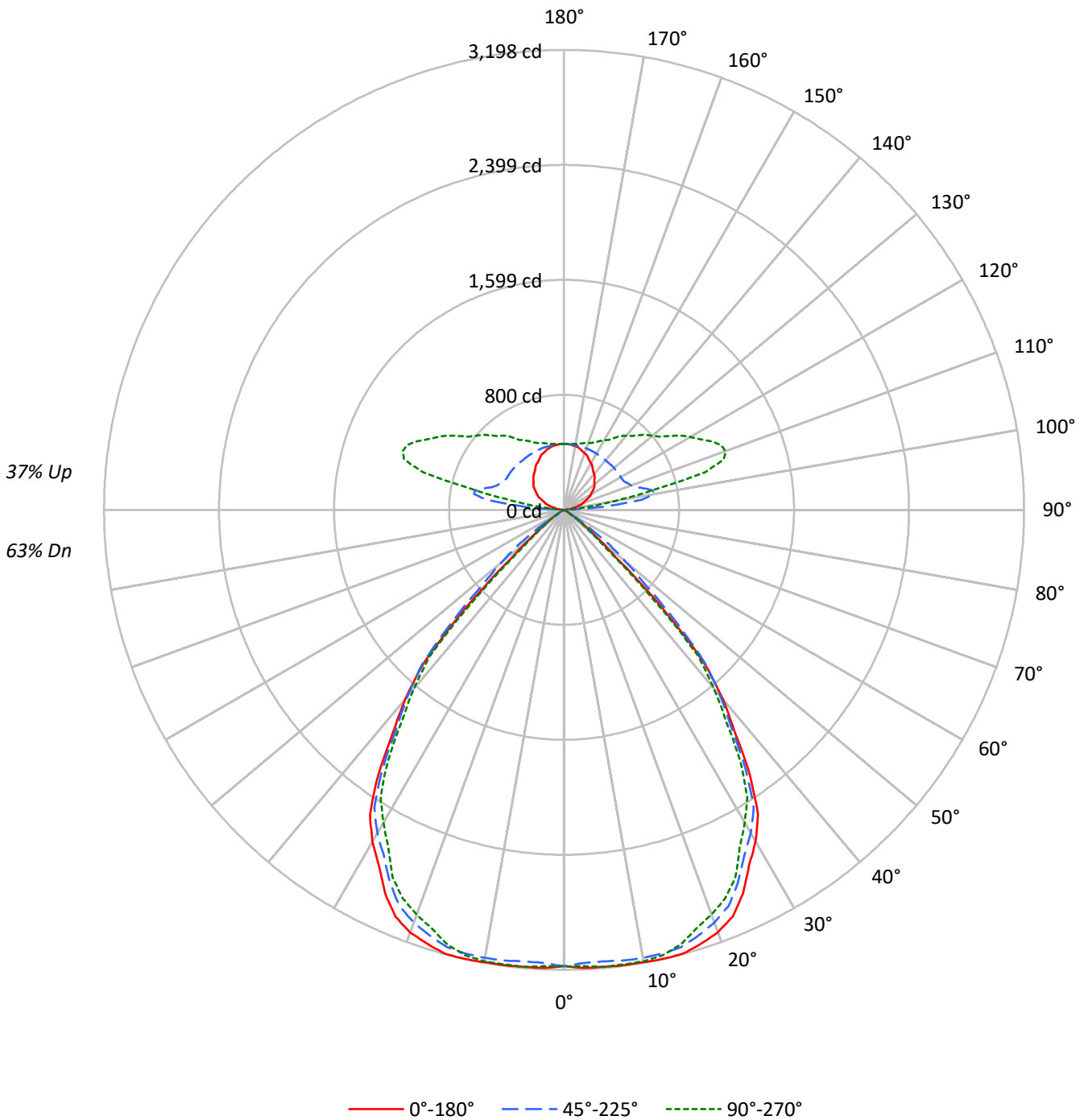
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7631.6 lumens  
Efficiency: N/A  
Efficacy: 104.4 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°	51240	51240	51240
5°	51700	51063	51700
10°	52360	51859	52251
15°	53417	52600	52311
20°	53721	52471	51465
25°	52421	50969	50201
30°	49640	48389	46816
35°	44392	43353	42143
40°	36153	35628	34172
45°	22069	25001	19879
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: 25044 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.7	4.0
10°-20°	891.8	11.7
20°-30°	1318.0	17.3
30°-40°	1354.5	17.7
40°-50°	782.4	10.3
50°-60°	135.6	1.8
60°-70°	5.1	0.1
70°-80°	0.1	0.0
80°-90°	0.6	0.0
90°-100°	173.5	2.3
100°-110°	575.1	7.5
110°-120°	570.7	7.5
120°-130°	464.9	6.1
130°-140°	377.8	5.0
140°-150°	293.4	3.8
150°-160°	211.4	2.8
160°-170°	129.5	1.7
170°-180°	43.7	0.6
0°-30°	2513.5	32.9
0°-40°	3868.0	50.7
0°-60°	4786.0	62.7
0°-90°	4791.7	62.8
90°-120°	1319.3	17.3
90°-150°	2455.4	32.2
90°-180°	2840.0	37.2
0°-180°	7631.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3174	3174	3174	3174	3174	
5°	3190	3180	3151	3196	3190	305
15°	3196	3219	3147	3152	3130	900
25°	2942	2969	2861	2828	2818	1345
35°	2252	2253	2200	2165	2138	1386
45°	966	1097	1095	1036	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	1	3	4	4	1
95°	25	73	314	112	75	28
105°	101	143	576	1086	1015	106
115°	180	215	463	965	1128	177
125°	251	279	455	758	894	223
135°	300	331	451	650	734	232
145°	348	374	450	560	612	219
155°	398	412	453	500	518	183
165°	437	442	455	473	478	123
175°	457	457	458	461	460	43
180°	459	459	459	459	459	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3173.6	3173.6	3173.6	3173.6	3173.6
2.5°	3188.2	3179.2	3153.7	3182.7	3175.9
5°	3189.9	3180.5	3150.6	3196.5	3189.9
7.5°	3193.0	3187.2	3161.5	3197.5	3187.0
10°	3193.7	3194.7	3163.1	3194.5	3187.0
12.5°	3198.4	3207.5	3160.0	3185.2	3172.5
15°	3195.7	3219.1	3146.8	3152.0	3129.5
17.5°	3163.5	3197.2	3104.4	3081.7	3053.6
20°	3126.6	3160.4	3053.8	3023.4	2995.3
22.5°	3061.4	3098.2	2984.0	2950.6	2924.7
25°	2942.5	2968.8	2861.0	2828.2	2817.9
27.5°	2786.1	2795.4	2712.0	2668.7	2644.6
30°	2662.6	2660.7	2595.5	2545.8	2511.1
32.5°	2509.9	2519.3	2453.6	2406.9	2371.5
35°	2252.2	2253.1	2199.5	2165.3	2138.1
37.5°	1951.5	1946.8	1909.7	1863.7	1848.4
40°	1715.3	1721.8	1690.4	1638.2	1621.3
42.5°	1441.5	1484.8	1462.5	1401.1	1380.5
45°	966.5	1096.8	1094.9	1036.5	870.6
47.5°	494.5	657.7	755.7	591.9	397.1
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	0.2	0.6	0.8	0.8
90°	0.0	0.9	2.8	3.8	3.8
92.5°	7.6	29.3	86.4	28.0	23.6
95°	24.7	73.0	314.3	112.2	75.0
97.5°	45.4	95.9	548.7	320.0	202.3
100°	59.8	108.1	635.3	545.7	361.8
102.5°	75.8	122.6	630.0	833.9	630.0
105°	100.7	143.4	575.5	1085.8	1015.2
107.5°	126.1	164.2	523.3	1111.4	1165.1
110°	140.6	178.6	496.7	1086.1	1194.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	155.7	193.1	480.7	1041.1	1179.5
115°	179.5	214.8	463.4	964.8	1128.2
117.5°	203.0	234.4	457.2	891.8	1063.3
120°	217.5	248.1	454.9	846.1	1012.4
122.5°	230.4	260.3	454.9	808.6	962.2
125°	250.7	278.6	454.9	758.1	893.6
127.5°	267.4	294.7	453.8	719.8	835.7
130°	277.3	306.1	453.0	697.5	801.5
132.5°	286.4	316.0	452.2	679.1	772.7
135°	300.1	330.7	451.1	650.5	734.1
137.5°	314.9	344.4	450.0	623.0	696.7
140°	324.8	353.6	449.2	604.6	672.4
142.5°	333.9	362.0	450.0	586.2	646.5
145°	348.5	374.5	450.1	559.6	612.5
147.5°	364.3	386.0	450.3	537.1	576.5
150°	374.2	393.7	451.1	524.0	557.5
152.5°	383.3	402.0	451.9	513.2	540.0
155°	397.9	411.8	453.0	500.0	518.5
157.5°	412.2	422.9	454.1	490.5	503.7
160°	419.8	429.0	454.9	483.6	493.8
162.5°	427.4	434.4	454.9	479.0	487.0
165°	436.9	441.5	454.9	473.0	477.7
167.5°	445.6	448.0	455.8	467.7	470.1
170°	450.1	451.1	455.8	465.4	466.3
172.5°	453.2	454.1	456.6	463.1	463.3
175°	456.8	456.8	457.7	460.6	459.6
177.5°	458.7	458.7	457.9	459.4	457.9
180°	458.7	458.7	458.7	458.7	458.7



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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	2.58	3.35	3.46	4.22	5.31	2.19	2.96	3.07	3.83	4.92
	3H	2.39	3.07	3.28	3.95	5.07	2.00	2.68	2.89	3.56	4.68
	4H	2.29	2.93	3.19	3.81	4.94	1.90	2.54	2.80	3.42	4.55
	6H	2.18	2.76	3.09	3.66	4.80	1.79	2.37	2.70	3.27	4.41
	8H	2.12	2.67	3.04	3.58	4.72	1.73	2.28	2.65	3.19	4.33
	12H	2.06	2.59	2.99	3.49	4.65	1.67	2.20	2.60	3.10	4.26
4H	2H	2.29	2.93	3.20	3.82	4.95	1.90	2.54	2.82	3.43	4.56
	3H	2.10	2.62	3.02	3.54	4.68	1.71	2.23	2.63	3.15	4.29
	4H	1.98	2.46	2.91	3.37	4.54	1.59	2.07	2.52	2.98	4.15
	6H	1.88	2.28	2.82	3.22	4.39	1.49	1.89	2.43	2.83	4.00
	8H	1.81	2.19	2.75	3.12	4.30	1.42	1.80	2.36	2.73	3.91
	12H	1.74	2.08	2.70	3.03	4.21	1.35	1.69	2.31	2.64	3.82
8H	4H	1.81	2.19	2.75	3.12	4.30	1.42	1.80	2.36	2.73	3.91
	6H	1.69	2.00	2.66	2.97	4.15	1.30	1.61	2.27	2.58	3.77
	8H	1.63	1.90	2.61	2.87	4.07	1.24	1.51	2.22	2.48	3.68
	12H	1.56	1.80	2.54	2.76	4.01	1.17	1.41	2.15	2.37	3.62
12H	4H	1.74	2.08	2.70	3.03	4.21	1.35	1.69	2.31	2.64	3.82
	6H	1.63	1.90	2.61	2.87	4.07	1.24	1.51	2.22	2.48	3.68
	8H	1.56	1.80	2.54	2.76	4.01	1.17	1.41	2.15	2.37	3.62