

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: P853499

Luminaire Tested: SQ2-BBM-025U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853499
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

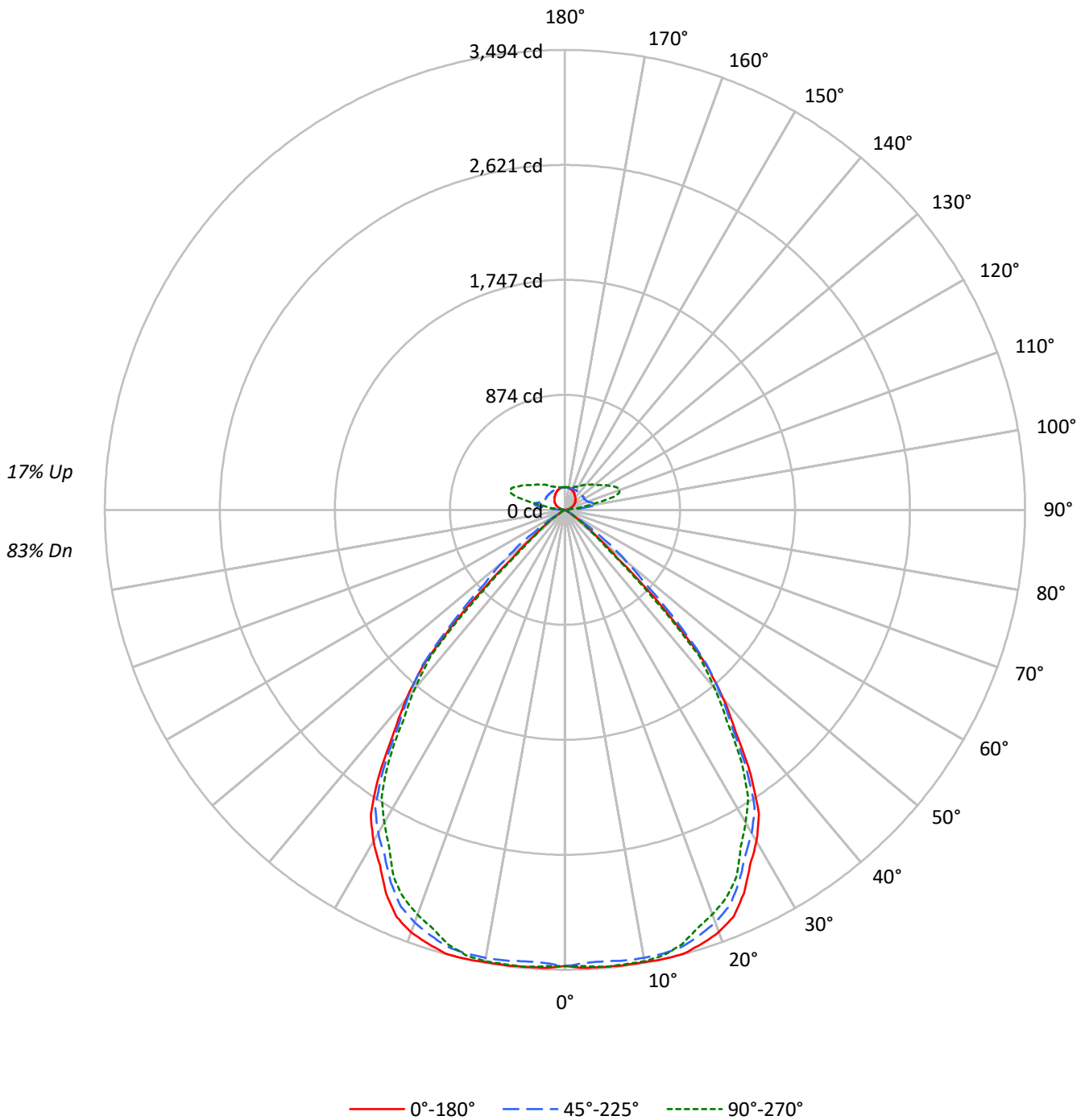
Lumens per Lamp: N/A
Luminaire Lumens: 6297.4 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.2
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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83		
1	108	105	102	100	104	101	99	97	94	92	91	88	86	85	82	81	80	77		
2	102	96	91	87	98	93	89	85	87	83	81	81	79	76	76	74	72	70		
3	95	88	82	77	92	85	80	76	80	76	72	75	72	69	71	68	66	63		
4	89	80	74	69	86	78	72	68	74	69	65	70	66	62	66	63	60	58		
5	83	74	67	62	80	72	65	61	68	63	59	64	60	57	61	58	55	53		
6	78	68	61	56	75	66	60	55	63	57	53	60	55	52	57	53	50	48		
7	73	63	56	51	71	61	55	50	58	53	49	55	51	47	53	49	46	44		
8	69	58	51	46	66	57	50	46	54	48	45	52	47	43	49	45	42	40		
9	65	54	47	42	63	53	46	42	50	45	41	48	43	40	46	42	39	37		
10	61	50	43	39	59	49	43	39	47	41	38	45	40	37	43	39	36	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	55979	55979	55979
5°	56483	55786	56483
10°	57204	56654	57084
15°	58357	57464	57150
20°	58690	57323	56225
25°	57270	55684	54843
30°	54231	52864	51145
35°	48498	47362	46042
40°	39496	38923	37334
45°	24110	27314	21717
50°	7867	15287	6920
55°	2683	5396	2773
60°	203	1556	68
65°	38	80	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: 27359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.8	5.3
10°-20°	974.3	15.5
20°-30°	1439.9	22.9
30°-40°	1479.8	23.5
40°-50°	854.8	13.6
50°-60°	148.1	2.4
60°-70°	5.5	0.1
70°-80°	0.1	0.0
80°-90°	0.5	0.0
90°-100°	69.3	1.1
100°-110°	215.5	3.4
110°-120°	210.9	3.3
120°-130°	172.1	2.7
130°-140°	140.8	2.2
140°-150°	109.9	1.7
150°-160°	79.3	1.3
160°-170°	48.5	0.8
170°-180°	16.3	0.3
0°-30°	2746.0	43.6
0°-40°	4225.8	67.1
0°-60°	5228.6	83.0
0°-90°	5234.8	83.1
90°-120°	495.7	7.9
90°-150°	918.5	14.6
90°-180°	1063.0	16.9
0°-180°	6297.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3467	3467	3467	3467	3467	
5°	3485	3475	3442	3492	3485	333
15°	3491	3517	3438	3444	3419	984
25°	3215	3243	3126	3090	3078	1470
35°	2460	2462	2403	2366	2336	1514
45°	1056	1198	1196	1132	951	807
55°	95	111	192	109	98	107
65°	1	1	2	1	0	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	355	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	208	227	82
155°	150	155	170	187	193	69
165°	165	166	171	176	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3467.1	3467.1	3467.1	3467.1	3467.1
2.5°	3483.1	3473.2	3445.4	3477.0	3469.7
5°	3485.0	3474.7	3442.0	3492.1	3485.0
7.5°	3488.3	3482.0	3453.9	3493.3	3481.8
10°	3489.1	3490.2	3455.6	3490.0	3481.8
12.5°	3494.2	3504.2	3452.3	3479.8	3465.9
15°	3491.2	3516.8	3437.8	3443.5	3419.0
17.5°	3456.0	3492.9	3391.5	3366.7	3336.0
20°	3415.8	3452.7	3336.2	3303.0	3272.3
22.5°	3344.6	3384.7	3260.0	3223.5	3195.2
25°	3214.7	3243.4	3125.7	3089.8	3078.5
27.5°	3043.8	3054.0	2962.9	2915.6	2889.1
30°	2908.8	2906.8	2835.5	2781.2	2743.3
32.5°	2742.1	2752.3	2680.5	2629.5	2590.8
35°	2460.5	2461.5	2402.9	2365.6	2335.9
37.5°	2132.0	2126.9	2086.4	2036.1	2019.3
40°	1873.9	1881.1	1846.7	1789.7	1771.3
42.5°	1574.8	1622.1	1597.8	1530.7	1508.2
45°	1055.9	1198.2	1196.2	1132.4	951.1
47.5°	540.3	718.5	825.6	646.7	433.9
50°	313.2	425.9	608.6	335.9	275.5
52.5°	198.4	252.1	432.6	218.3	183.3
55°	95.3	110.7	191.7	108.7	98.5
57.5°	34.8	51.8	85.1	52.9	37.3
60°	6.3	21.6	48.2	14.4	2.1
62.5°	2.1	6.0	28.1	3.7	1.3
65°	1.0	1.0	2.1	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	0.6	0.6
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.5	27.9	127.1	46.9	30.5
97.5°	17.2	36.3	210.5	131.0	82.6
100°	23.1	40.6	237.4	222.1	148.1
102.5°	29.0	45.6	232.4	317.2	249.0
105°	37.8	53.2	212.2	405.1	386.6
107.5°	46.6	61.0	192.9	411.8	432.2
110°	52.5	66.9	182.8	402.2	442.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.4	72.0	177.7	384.8	435.5
115°	67.2	79.6	172.3	355.4	416.0
117.5°	75.8	87.1	170.0	327.3	389.3
120°	80.9	92.2	169.1	311.2	370.8
122.5°	85.9	97.2	170.0	297.7	352.3
125°	93.5	103.8	170.2	279.5	327.7
127.5°	99.6	110.1	170.2	265.9	306.9
130°	102.9	114.2	170.2	258.2	295.2
132.5°	107.1	118.4	169.3	251.4	285.9
135°	112.4	124.7	169.1	241.2	271.0
137.5°	118.5	129.8	169.1	231.1	258.2
140°	121.9	133.2	169.1	224.3	249.0
142.5°	126.1	136.5	169.1	217.5	239.7
145°	131.3	141.6	169.1	208.4	226.9
147.5°	137.6	146.4	170.2	199.9	214.5
150°	141.8	149.0	170.2	195.6	206.9
152.5°	145.2	151.5	170.2	191.4	201.1
155°	150.2	155.4	170.2	187.1	193.3
157.5°	155.3	159.2	170.2	183.3	187.2
160°	158.6	161.7	170.2	180.8	183.8
162.5°	161.1	163.4	170.2	179.1	181.3
165°	164.9	166.0	171.2	176.5	178.6
167.5°	167.2	167.4	170.2	175.0	176.1
170°	168.1	169.1	170.2	173.4	174.4
172.5°	169.8	170.0	171.0	172.5	172.7
175°	171.2	171.2	171.2	172.3	171.2
177.5°	171.2	171.2	171.2	171.2	171.2
180°	171.2	171.2	171.2	171.2	171.2



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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	4.57	5.50	5.22	6.13	6.84	4.19	5.12	4.83	5.74	6.46
	3H	4.39	5.21	5.05	5.85	6.60	4.01	4.82	4.66	5.46	6.22
	4H	4.30	5.06	4.97	5.71	6.48	3.91	4.67	4.59	5.32	6.09
	6H	4.19	4.89	4.88	5.55	6.33	3.81	4.50	4.49	5.17	5.94
	8H	4.14	4.79	4.84	5.47	6.26	3.75	4.41	4.45	5.09	5.87
	12H	4.08	4.71	4.78	5.38	6.19	3.69	4.32	4.40	4.99	5.80
4H	2H	4.30	5.06	4.98	5.71	6.48	3.92	4.68	4.60	5.33	6.10
	3H	4.12	4.73	4.81	5.43	6.21	3.73	4.35	4.42	5.04	5.82
	4H	4.01	4.56	4.71	5.26	6.07	3.62	4.17	4.32	4.87	5.69
	6H	3.90	4.37	4.63	5.09	5.93	3.52	3.99	4.24	4.71	5.54
	8H	3.84	4.28	4.57	4.99	5.83	3.45	3.89	4.18	4.61	5.44
	12H	3.77	4.16	4.52	4.90	5.74	3.38	3.77	4.13	4.52	5.36
8H	4H	3.84	4.28	4.57	4.99	5.83	3.45	3.89	4.18	4.61	5.44
	6H	3.72	4.07	4.47	4.84	5.68	3.33	3.69	4.09	4.45	5.29
	8H	3.65	3.97	4.42	4.73	5.59	3.26	3.58	4.03	4.35	5.20
	12H	3.59	3.87	4.35	4.62	5.54	3.20	3.48	3.97	4.23	5.15
12H	4H	3.77	4.16	4.52	4.90	5.74	3.38	3.77	4.13	4.52	5.36
	6H	3.65	3.97	4.42	4.73	5.59	3.26	3.58	4.03	4.35	5.20
	8H	3.59	3.87	4.35	4.62	5.54	3.20	3.48	3.97	4.23	5.15