

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: P855551

Luminaire Tested: SQ2-FA-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855551  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

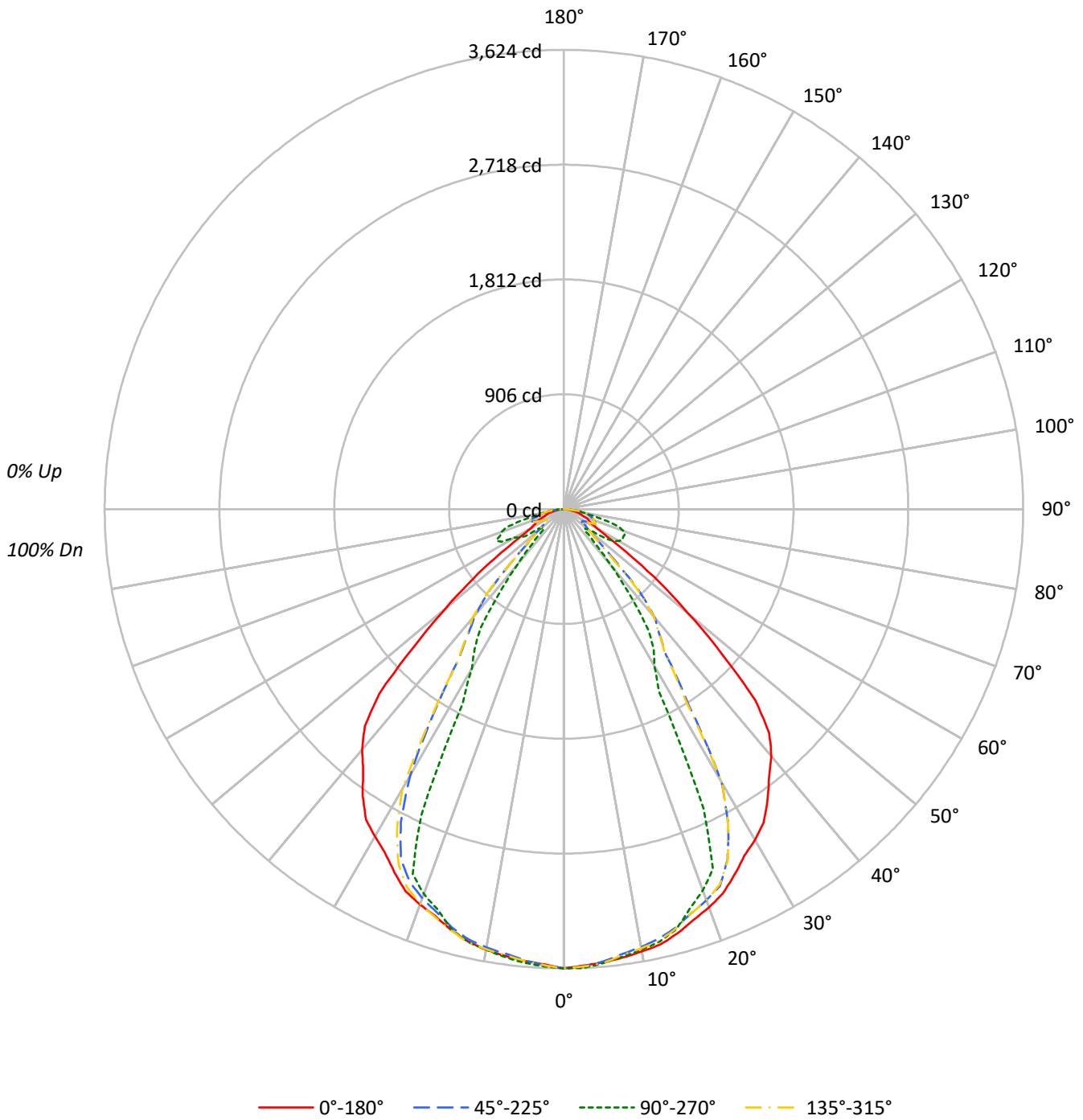
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5292.5 lumens  
Efficiency: N/A  
Efficacy: 107.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 49.2  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	65	72	68	65	63				63
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57				57
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				52
7	74	63	56	50	73	62	55	50	61	55	50	59	54	50	58	53	49	48				48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	46	44				44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				41
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38				38

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

	0°	90°	180°	270°
0°	58513	58513	58513	58513
5°	58204	58294	57982	58248
10°	58115	57890	57890	57890
15°	57927	57334	57469	57334
20°	57477	55036	57055	55553
25°	56721	46451	56333	47423
30°	56201	26649	55590	27005
35°	55215	22894	54515	22570
40°	53685	12039	52189	11923
45°	48802	5179	47056	5179
50°	32197	6247	30549	5835
55°	18002	11541	17078	10460
60°	9710	16239	9529	14564
65°	8562	19733	8978	22449
70°	7997	23613	7615	24902
75°	7505	20287	7673	20973
80°	6360	14486	6360	15249
85°	5576	8096	5076	9615

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 48802 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.0	6.4
10°-20°	967.5	18.3
20°-30°	1319.2	24.9
30°-40°	1108.6	20.9
40°-50°	629.7	11.9
50°-60°	334.1	6.3
60°-70°	307.6	5.8
70°-80°	225.8	4.3
80°-90°	59.0	1.1
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°	2627.8	49.7
0°-40°	3736.4	70.6
0°-60°	4700.1	88.8
0°-90°	5292.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5292.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3624	3624	3624	3624	3624	
5°	3591	3597	3578	3594	3591	341
15°	3466	3430	3438	3430	3466	977
25°	3184	2607	3162	2662	3184	1468
35°	2801	1162	2766	1145	2801	1749
45°	2137	227	2061	227	2137	1563
55°	640	410	607	372	640	616
65°	224	516	235	588	224	225
75°	120	325	123	336	120	124
85°	30	44	27	52	30	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0
2.5°	3604.3	3657.8	3610.9	3604.8	3624.0	3619.7	3613.1	3638.3	3595.5	3638.3	3604.3
5°	3591.2	3652.7	3583.0	3564.6	3596.7	3575.3	3593.9	3630.9	3577.5	3625.6	3572.1
7.5°	3568.8	3623.2	3539.8	3528.0	3559.5	3540.7	3548.6	3600.0	3555.1	3586.7	3538.1
10°	3544.7	3592.8	3509.2	3501.7	3531.0	3512.3	3520.2	3573.8	3531.0	3560.4	3511.9
12.5°	3518.5	3555.9	3472.1	3468.8	3493.9	3481.6	3485.2	3530.3	3496.0	3525.5	3479.2
15°	3465.5	3500.2	3416.3	3403.3	3430.0	3419.2	3424.5	3464.9	3438.1	3456.9	3416.3
17.5°	3399.9	3427.7	3344.2	3304.8	3305.8	3319.3	3344.2	3392.7	3368.7	3393.3	3335.9
20°	3345.2	3377.3	3285.1	3208.5	3203.1	3216.4	3285.1	3334.0	3320.6	3347.3	3266.0
22.5°	3281.8	3303.2	3219.5	3090.1	3071.9	3085.3	3210.8	3268.6	3263.8	3281.9	3180.7
25°	3183.9	3205.3	3052.8	2866.5	2607.4	2850.4	3058.2	3162.1	3162.1	3178.2	3044.6
27.5°	3084.5	3085.0	2809.0	1841.0	1623.9	1774.7	2805.2	3030.4	3056.1	3048.0	2785.5
30°	3014.5	2995.9	2489.8	1488.1	1429.4	1466.7	2492.5	2938.9	2981.7	2952.3	2427.0
32.5°	2933.6	2880.8	1838.3	1368.2	1320.1	1353.2	1777.6	2830.4	2905.2	2841.6	1908.8
35°	2801.3	2662.4	1402.0	1209.6	1161.5	1204.3	1391.2	2616.2	2765.8	2594.8	1448.5
37.5°	2658.7	2116.2	1234.2	963.5	859.8	942.7	1228.2	2093.6	2600.8	2044.9	1233.2
40°	2547.1	1662.6	1109.6	704.8	571.2	664.7	1101.4	1586.3	2476.1	1706.5	1082.3
42.5°	2398.6	1460.5	891.0	447.7	350.4	409.7	854.3	1426.8	2323.1	1478.6	861.4
45°	2137.3	1255.4	527.5	245.6	226.8	237.5	486.5	1232.3	2060.8	1205.6	538.4
47.5°	1692.9	957.4	338.9	208.7	229.0	208.7	328.5	927.1	1598.8	925.4	338.4
50°	1281.8	747.4	262.3	211.3	248.7	211.3	254.2	721.8	1216.2	788.7	259.6
52.5°	949.5	624.5	214.2	231.7	299.0	236.0	208.2	607.9	901.4	636.2	202.8
55°	639.5	489.9	172.1	305.8	410.0	313.7	172.1	475.8	606.7	470.4	166.7
57.5°	405.6	364.4	174.4	393.0	467.9	400.6	177.1	351.3	389.2	352.9	153.0
60°	300.7	287.2	194.1	417.4	502.9	422.7	196.8	276.5	295.1	273.7	164.0
62.5°	248.2	226.2	233.3	452.0	522.6	440.2	238.3	215.8	258.0	206.6	181.5
65°	224.1	146.7	276.0	457.8	516.5	457.8	278.7	138.9	235.0	149.5	246.0
67.5°	202.2	108.8	266.7	454.6	519.8	455.7	260.2	103.8	194.1	101.1	251.5
70°	169.4	97.3	251.5	462.7	500.2	446.7	251.5	94.5	161.3	91.8	295.1
72.5°	141.0	92.3	233.9	427.3	443.3	411.2	236.2	91.9	141.6	82.7	277.7
75°	120.3	90.9	224.1	341.3	325.2	325.2	218.6	88.3	123.0	83.0	215.9
77.5°	90.2	80.6	185.8	222.7	210.5	210.5	182.5	77.7	85.8	73.0	175.4
80°	68.4	73.7	153.0	163.8	155.8	155.8	147.6	71.0	68.4	68.4	144.9
82.5°	53.1	62.7	118.0	120.1	114.2	112.1	114.8	62.1	53.1	57.3	112.0
85°	30.1	43.5	62.8	51.7	43.7	41.1	60.1	40.7	27.4	40.7	60.1
87.5°	11.0	19.5	8.7	8.7	8.7	8.7	8.7	19.5	11.0	17.3	11.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0
2.5°	3595.9	3610.9	3610.9	3602.1	3645.0	3604.3
5°	3559.2	3593.9	3577.9	3577.5	3631.3	3591.2
7.5°	3533.5	3566.1	3551.0	3548.0	3600.8	3568.8
10°	3507.0	3531.0	3520.4	3528.3	3576.8	3544.7
12.5°	3469.9	3498.3	3487.6	3499.9	3544.1	3518.5
15°	3405.9	3430.0	3435.3	3440.9	3492.2	3465.5
17.5°	3300.2	3311.9	3338.6	3376.4	3429.8	3399.9
20°	3217.1	3233.2	3249.2	3315.2	3377.3	3345.2
22.5°	3122.6	3117.3	3154.7	3232.0	3309.7	3281.8
25°	2867.7	2662.0	2889.1	3088.3	3192.0	3183.9
27.5°	1996.7	1732.7	1966.3	2850.5	3068.5	3084.5
30°	1571.4	1448.5	1568.7	2544.4	2977.1	3014.5
32.5°	1395.2	1310.8	1384.0	1936.6	2862.0	2933.6
35°	1204.0	1145.1	1204.0	1448.5	2635.6	2801.3
37.5°	963.6	843.4	961.6	1251.7	2130.7	2658.7
40°	718.0	565.7	696.7	1120.6	1702.7	2547.1
42.5°	478.5	364.6	452.8	882.2	1472.9	2398.6
45°	258.9	226.8	248.2	532.9	1201.9	2137.3
47.5°	203.0	214.8	203.0	336.2	919.5	1692.9
50°	194.9	232.3	194.9	259.6	760.7	1281.8
52.5°	212.4	252.0	210.3	204.9	620.7	949.5
55°	240.7	371.6	243.4	166.7	455.2	639.5
57.5°	342.8	418.1	346.5	158.0	350.5	405.6
60°	352.1	451.0	349.5	166.7	271.3	300.7
62.5°	416.5	558.1	415.9	190.8	201.7	248.2
65°	534.1	587.6	539.5	243.2	143.9	224.1
67.5°	507.0	545.0	501.7	260.7	99.1	202.2
70°	498.0	527.5	492.7	297.9	92.0	169.4
72.5°	464.7	468.4	455.0	276.0	82.7	141.0
75°	360.2	336.2	346.9	237.8	82.8	120.3
77.5°	223.8	214.2	215.9	181.5	73.1	90.2
80°	169.3	164.0	161.3	153.0	68.4	68.4
82.5°	125.6	120.3	117.6	118.0	57.3	53.1
85°	57.3	51.9	49.2	68.4	40.7	30.1
87.5°	11.0	11.0	8.8	11.0	15.2	11.0
90°	0.0	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	18.14	19.45	18.50	19.76	20.08	17.00	18.31	17.36	18.62	18.93
	3H	18.86	20.04	19.24	20.37	20.73	23.17	24.34	23.55	24.67	25.04
	4H	19.29	20.39	19.69	20.74	21.12	24.46	25.56	24.87	25.91	26.30
	6H	19.66	20.68	20.08	21.05	21.44	25.09	26.10	25.50	26.47	26.86
	8H	19.79	20.75	20.22	21.14	21.55	25.22	26.18	25.65	26.57	26.98
	12H	19.88	20.79	20.31	21.18	21.61	25.28	26.20	25.71	26.58	27.01
4H	2H	18.57	19.67	18.98	20.02	20.41	17.57	18.67	17.97	19.02	19.40
	3H	19.60	20.51	20.01	20.92	21.32	23.92	24.83	24.33	25.24	25.64
	4H	20.17	20.99	20.61	21.41	21.85	25.38	26.20	25.82	26.62	27.06
	6H	20.67	21.38	21.13	21.83	22.29	26.14	26.85	26.60	27.30	27.76
	8H	20.84	21.51	21.31	21.96	22.43	26.31	26.98	26.78	27.42	27.89
	12H	20.98	21.57	21.46	22.05	22.52	26.39	26.98	26.88	27.46	27.94
8H	4H	21.30	21.96	21.76	22.41	22.88	25.53	26.20	26.00	26.64	27.11
	6H	21.92	22.46	22.42	22.96	23.44	26.42	26.97	26.92	27.46	27.94
	8H	22.15	22.64	22.67	23.15	23.64	26.67	27.16	27.19	27.67	28.16
	12H	22.34	22.77	22.86	23.26	23.83	26.81	27.24	27.33	27.73	28.30
12H	4H	21.46	22.05	21.95	22.53	23.01	25.51	26.10	26.00	26.58	27.06
	6H	22.19	22.68	22.71	23.19	23.68	26.43	26.92	26.95	27.43	27.92
	8H	22.51	22.94	23.02	23.43	24.00	26.73	27.16	27.24	27.65	28.22