

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: P845516

Luminaire Tested: SQ2R-FA-125D-940-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

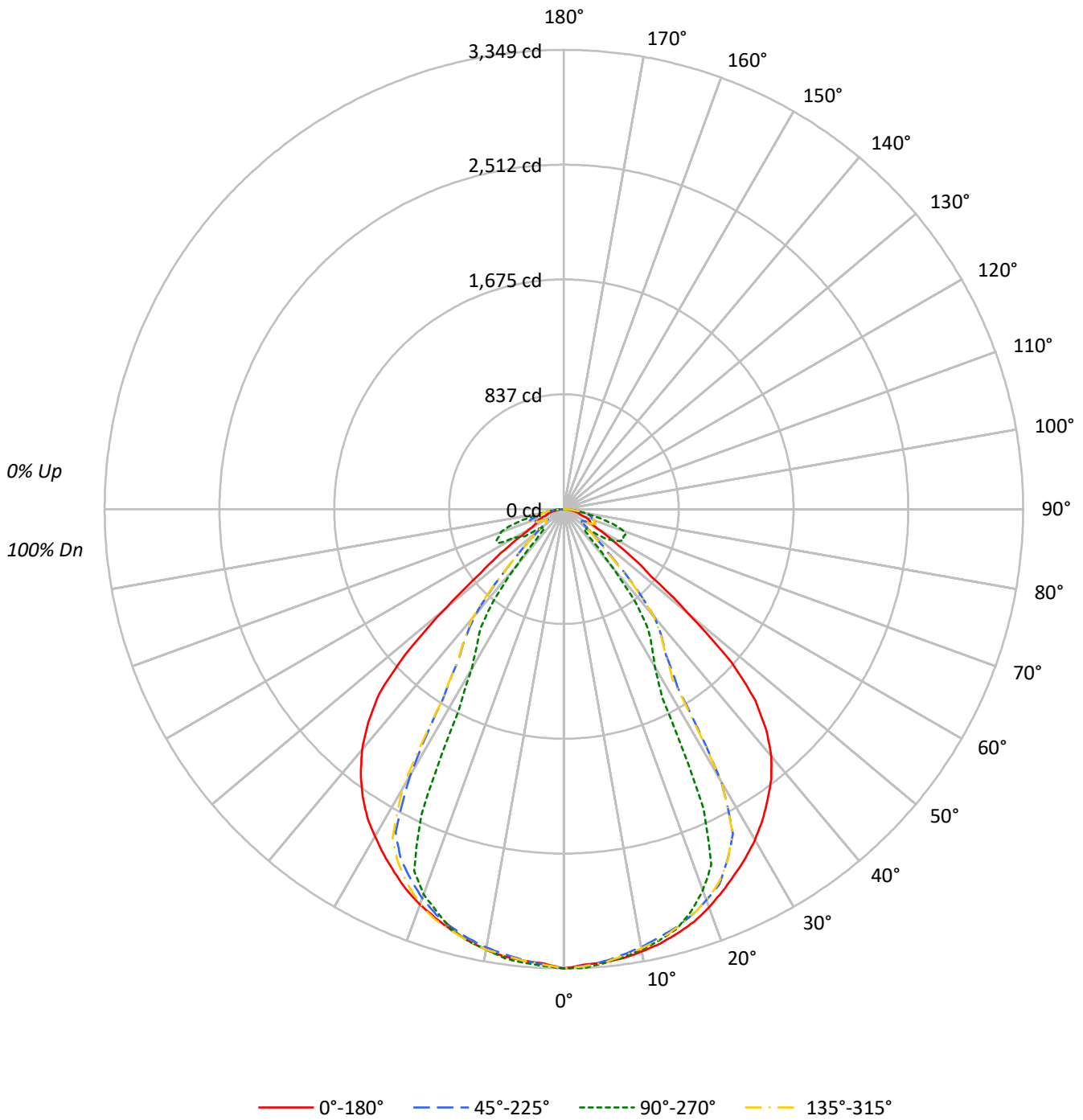
Test Method: LM-79-2019  
Report Number: P845516  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-FA-125D-940-UNV-STD-W-4  
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS  
1250 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4886.2 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 0.95 / 0.93  
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: 0.9979  
Total Harmonic Distortion (THDi): 0.0523  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
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	94	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	75	70	66	73	68	65	63				63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	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	60	54	50	58	53	49	48				48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	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	40	49	43	39	48	43	39	38				38

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

	0°	90°	180°	270°
0°	54076	54076	54076	54076
5°	53791	53872	53585	53832
10°	53708	53502	53502	53502
15°	53534	52986	53112	52986
20°	53120	50862	52728	51340
25°	52421	42927	52061	43827
30°	51939	24628	51374	24958
35°	51028	21159	50382	20860
40°	49615	11126	48232	11019
45°	45101	4786	43484	4786
50°	29755	5772	28233	5393
55°	16636	10666	15783	9669
60°	8971	15006	8809	13459
65°	7912	18239	8298	20745
70°	7393	21819	7034	23014
75°	6931	18752	7093	19382
80°	5867	13389	5867	14086
85°	5150	7484	4687	8892

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 45101 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.4	6.5
10°-20°	895.0	18.3
20°-30°	1224.3	25.1
30°-40°	1025.3	21.0
40°-50°	574.7	11.8
50°-60°	304.8	6.2
60°-70°	284.2	5.8
70°-80°	209.0	4.3
80°-90°	53.5	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°	2434.8	49.8
0°-40°	3460.1	70.8
0°-60°	4339.6	88.8
0°-90°	4886.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4886.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3349	3349	3349	3349	3349	
5°	3319	3324	3306	3321	3319	316
15°	3203	3170	3177	3170	3203	904
25°	2942	2410	2922	2460	2942	1357
35°	2589	1074	2556	1058	2589	1618
45°	1975	210	1904	210	1975	1457
55°	591	379	561	344	591	558
65°	207	477	217	543	207	207
75°	111	301	114	311	111	114
85°	28	40	25	48	28	32
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°	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2
2.5°	3326.5	3389.6	3334.0	3326.5	3349.2	3344.1	3336.6	3366.9	3316.4	3366.9	3326.5
5°	3318.9	3377.0	3311.3	3293.6	3323.9	3303.7	3321.4	3356.8	3306.2	3351.7	3301.2
7.5°	3303.7	3356.8	3278.5	3265.8	3296.1	3278.5	3286.0	3334.0	3291.1	3321.4	3275.9
10°	3275.9	3321.4	3243.1	3235.5	3263.3	3245.6	3253.2	3303.7	3263.3	3291.1	3245.6
12.5°	3245.6	3278.5	3200.2	3197.6	3220.4	3210.3	3212.8	3253.2	3222.9	3250.7	3207.7
15°	3202.7	3235.5	3157.2	3144.6	3169.9	3159.8	3164.8	3202.7	3177.4	3195.1	3157.2
17.5°	3154.7	3180.0	3104.2	3076.4	3078.9	3091.6	3104.2	3149.6	3124.4	3147.1	3099.1
20°	3091.6	3121.9	3036.0	2965.3	2960.2	2972.8	3036.0	3081.5	3068.8	3094.1	3018.3
22.5°	3018.3	3036.0	2960.2	2828.9	2808.7	2821.3	2950.1	3005.7	3003.2	3018.3	2919.8
25°	2942.5	2962.7	2821.3	2654.6	2409.6	2639.4	2826.3	2922.3	2922.3	2937.5	2813.7
27.5°	2866.8	2871.8	2669.8	1788.3	1545.8	1715.0	2664.7	2821.3	2841.5	2839.0	2657.1
30°	2785.9	2768.3	2301.0	1376.6	1321.0	1356.3	2303.5	2715.2	2755.6	2727.8	2242.9
32.5°	2692.5	2634.4	1548.3	1237.6	1194.7	1225.0	1477.6	2588.9	2667.2	2599.0	1644.3
35°	2588.9	2457.6	1295.7	1118.9	1073.5	1113.9	1285.6	2414.6	2556.1	2394.4	1338.7
37.5°	2482.8	2050.9	1169.4	952.2	861.3	937.1	1164.4	2043.4	2432.3	1957.5	1174.5
40°	2354.0	1518.0	1025.5	654.2	527.9	616.3	1017.9	1447.3	2288.4	1560.9	1000.2
42.5°	2182.3	1283.1	772.9	356.1	272.8	320.8	732.5	1262.9	2111.6	1295.7	745.1
45°	1975.2	1141.7	487.5	227.3	209.6	219.7	449.6	1121.4	1904.4	1096.2	497.6
47.5°	1659.4	916.9	330.9	192.0	207.1	192.0	320.8	889.1	1566.0	871.4	330.9
50°	1184.6	679.4	242.5	194.5	229.8	194.5	234.9	656.7	1124.0	719.8	239.9
52.5°	800.7	543.0	186.9	217.2	287.9	222.3	181.9	530.4	760.3	548.1	174.3
55°	591.0	449.6	159.1	280.4	378.9	287.9	159.1	437.0	560.7	431.9	154.1
57.5°	399.1	353.6	156.6	356.1	424.3	363.7	159.1	341.0	381.4	343.5	138.9
60°	277.8	265.2	179.3	383.9	464.7	389.0	181.9	255.1	272.8	252.6	151.5
62.5°	217.2	194.5	224.8	424.3	487.5	409.2	229.8	184.4	229.8	174.3	171.8
65°	207.1	133.9	255.1	421.8	477.4	421.8	257.6	126.3	217.2	136.4	227.3
67.5°	194.5	101.0	250.1	416.8	485.0	421.8	242.5	96.0	186.9	93.5	222.3
70°	156.6	88.4	232.4	426.9	462.2	411.7	232.4	85.9	149.0	83.4	272.8
72.5°	123.8	83.4	212.2	386.4	396.5	371.3	214.7	83.4	126.3	73.2	252.6
75°	111.1	83.4	207.1	315.7	300.6	300.6	202.1	80.8	113.7	75.8	199.5
77.5°	88.4	75.8	179.3	219.7	207.1	207.1	176.8	73.2	83.4	68.2	169.2
80°	63.1	68.2	141.4	151.5	144.0	144.0	136.4	65.7	63.1	63.1	133.9
82.5°	45.5	55.6	101.0	101.0	96.0	93.5	98.5	55.6	45.5	50.5	96.0
85°	27.8	40.4	58.1	48.0	40.4	37.9	55.6	37.9	25.3	37.9	55.6
87.5°	12.6	22.7	10.1	10.1	10.1	10.1	10.1	22.7	12.6	20.2	12.6
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°	3349.2	3349.2	3349.2	3349.2	3349.2	3349.2
2.5°	3316.4	3334.0	3334.0	3323.9	3374.4	3326.5
5°	3288.6	3321.4	3306.2	3306.2	3356.8	3318.9
7.5°	3270.9	3303.7	3288.6	3283.5	3334.0	3303.7
10°	3240.6	3263.3	3253.2	3260.8	3306.2	3275.9
12.5°	3197.6	3225.4	3215.3	3227.9	3268.4	3245.6
15°	3147.1	3169.9	3174.9	3180.0	3227.9	3202.7
17.5°	3068.8	3078.9	3106.7	3134.5	3182.5	3154.7
20°	2972.8	2988.0	3003.2	3063.8	3121.9	3091.6
22.5°	2864.2	2854.1	2894.5	2967.8	3043.6	3018.3
25°	2654.6	2460.1	2674.8	2854.1	2950.1	2942.5
27.5°	1949.9	1667.0	1914.5	2705.1	2856.7	2866.8
30°	1454.9	1338.7	1452.3	2351.5	2750.6	2785.9
32.5°	1250.3	1179.5	1237.6	1649.3	2616.7	2692.5
35°	1113.9	1058.3	1113.9	1338.7	2432.3	2588.9
37.5°	949.7	843.6	952.2	1187.1	2058.5	2482.8
40°	666.8	522.8	646.6	1035.6	1555.9	2354.0
42.5°	389.0	290.5	363.7	760.3	1288.1	2182.3
45°	239.9	209.6	229.8	492.5	1091.1	1975.2
47.5°	189.4	194.5	189.4	328.4	868.9	1659.4
50°	179.3	214.7	179.3	239.9	692.1	1184.6
52.5°	199.5	237.4	197.0	176.8	535.5	800.7
55°	219.7	343.5	222.3	154.1	416.8	591.0
57.5°	313.2	378.9	318.2	144.0	341.0	399.1
60°	323.3	416.8	320.8	154.1	250.1	277.8
62.5°	396.5	540.5	396.5	181.9	169.2	217.2
65°	492.5	543.0	497.6	224.8	131.3	207.1
67.5°	469.8	507.7	464.7	232.4	90.9	194.5
70°	459.7	487.5	454.6	275.3	83.4	156.6
72.5°	421.8	419.3	411.7	250.1	73.2	123.8
75°	333.4	310.7	320.8	219.7	75.8	111.1
77.5°	219.7	209.6	212.2	174.3	68.2	88.4
80°	156.6	151.5	149.0	141.4	63.1	63.1
82.5°	106.1	101.0	98.5	101.0	50.5	45.5
85°	53.0	48.0	45.5	63.1	37.9	27.8
87.5°	12.6	12.6	10.1	12.6	17.7	12.6
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	17.85	19.16	18.21	19.47	19.78	16.69	18.00	17.06	18.31	18.63
	3H	18.57	19.74	18.95	20.07	20.43	22.89	24.06	23.27	24.39	24.76
	4H	18.99	20.09	19.40	20.44	20.82	24.19	25.28	24.59	25.64	26.02
	6H	19.37	20.38	19.78	20.75	21.14	24.82	25.82	25.23	26.19	26.59
	8H	19.50	20.46	19.93	20.85	21.25	24.95	25.91	25.38	26.30	26.70
	12H	19.58	20.50	20.02	20.88	21.31	25.00	25.92	25.44	26.30	26.73
4H	2H	18.29	19.38	18.69	19.73	20.12	17.27	18.37	17.67	18.72	19.10
	3H	19.30	20.22	19.72	20.62	21.02	23.64	24.55	24.06	24.96	25.36
	4H	19.88	20.70	20.31	21.12	21.56	25.11	25.93	25.54	26.35	26.79
	6H	20.38	21.09	20.84	21.53	22.00	25.87	26.58	26.33	27.02	27.49
	8H	20.55	21.22	21.02	21.66	22.13	26.04	26.70	26.51	27.15	27.62
	12H	20.69	21.28	21.17	21.76	22.23	26.12	26.71	26.61	27.19	27.66
8H	4H	21.01	21.67	21.48	22.12	22.59	25.26	25.92	25.73	26.37	26.84
	6H	21.63	22.17	22.13	22.67	23.15	26.15	26.69	26.65	27.19	27.67
	8H	21.87	22.35	22.39	22.87	23.36	26.40	26.88	26.92	27.40	27.89
	12H	22.06	22.49	22.57	22.98	23.55	26.54	26.97	27.05	27.46	28.03
12H	4H	21.17	21.76	21.66	22.24	22.72	25.24	25.83	25.72	26.31	26.78
	6H	21.90	22.39	22.43	22.91	23.40	26.16	26.64	26.68	27.16	27.65
	8H	22.23	22.65	22.74	23.15	23.72	26.46	26.88	26.97	27.38	27.95