

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: P845583

Luminaire Tested: SQ2R-PH1-125D-830-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

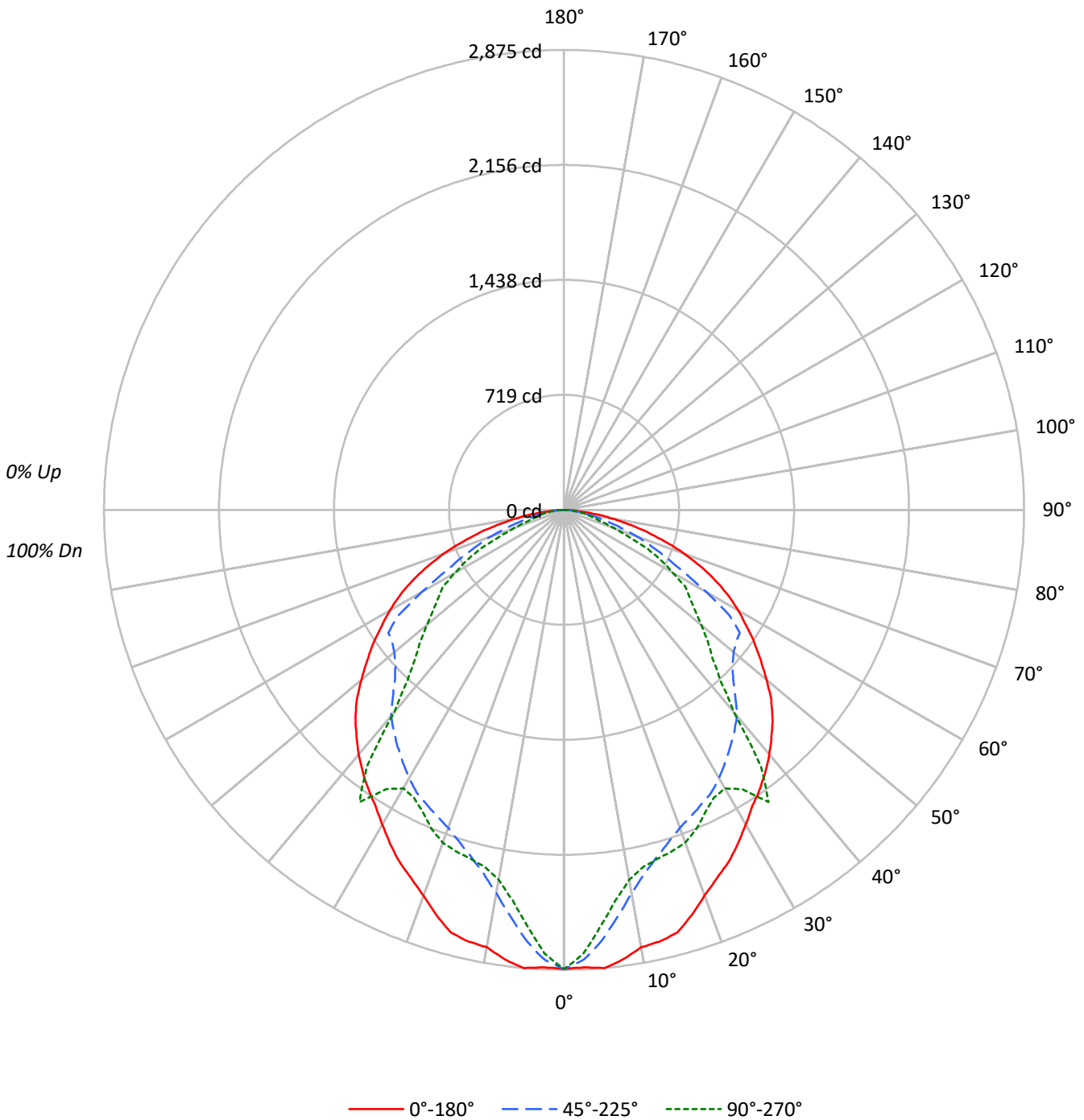
Test Method: LM-79-2019  
Report Number: P845583  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-125D-830-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
1250 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6340.3 lumens  
Efficiency: N/A  
Efficacy: 128.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.03 / 1.23  
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	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85	85	85	
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72	72	72	
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61	61	61	
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53	53	53	
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46	46	46	
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40	40	40	
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36	36	36	
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32	32	32	
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29	29	29	
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26	26	26	

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

	0°	45°	90°
0°	46335	46335	46335
5°	46601	43814	42353
10°	45529	39887	38500
15°	45733	37518	37747
20°	44101	36361	38050
25°	43294	36191	37166
30°	42355	36094	37468
35°	42034	35684	43917
40°	42069	35451	34819
45°	42085	34104	29990
50°	41496	34774	28120
55°	40969	37740	26978
60°	40562	33067	25307
65°	39851	26812	22010
70°	37638	22815	15725
75°	33556	17205	11921
80°	27420	11167	11167
85°	17191	10115	7595

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 42085 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.2	4.0
10°-20°	663.7	10.5
20°-30°	973.4	15.4
30°-40°	1179.8	18.6
40°-50°	1159.0	18.3
50°-60°	1009.7	15.9
60°-70°	700.0	11.0
70°-80°	330.4	5.2
80°-90°	71.1	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°	1890.2	29.8
0°-40°	3070.0	48.4
0°-60°	5238.8	82.6
0°-90°	6340.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6340.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2875	2873	2703	2619	2613	271
15°	2736	2430	2244	2228	2258	764
25°	2430	2059	2032	2094	2086	1118
35°	2133	1715	1810	1960	2228	1336
45°	1843	1354	1494	1551	1313	1418
55°	1455	1054	1341	967	958	1300
65°	1043	724	702	576	576	1026
75°	538	369	276	197	191	569
85°	93	60	55	44	41	122
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2869.8	2869.8	2869.8	2869.8	2869.8
2.5°	2861.6	2899.9	2815.2	2782.4	2777.0
5°	2875.3	2872.6	2703.3	2618.6	2613.2
7.5°	2834.3	2760.6	2564.0	2468.4	2463.0
10°	2777.0	2648.6	2432.9	2348.3	2348.3
12.5°	2763.3	2542.2	2326.4	2269.1	2285.5
15°	2736.0	2430.2	2244.5	2228.1	2258.2
17.5°	2654.1	2323.7	2176.3	2203.6	2239.1
20°	2566.7	2241.8	2116.2	2181.7	2214.5
22.5°	2493.0	2162.6	2072.5	2146.2	2159.9
25°	2430.2	2058.8	2031.5	2094.3	2086.2
27.5°	2353.7	1966.0	1993.3	2031.5	2028.8
30°	2271.8	1884.1	1936.0	1974.2	2009.7
32.5°	2192.6	1788.5	1873.2	1976.9	2069.8
35°	2132.6	1714.8	1810.4	1960.5	2228.1
37.5°	2067.0	1624.7	1747.6	1867.7	2023.3
40°	1996.0	1526.4	1682.0	1848.6	1652.0
42.5°	1919.6	1449.9	1583.7	1813.1	1447.2
45°	1843.1	1354.4	1493.6	1551.0	1313.4
47.5°	1755.8	1283.4	1428.1	1318.9	1217.8
50°	1652.0	1212.4	1384.4	1179.6	1119.5
52.5°	1551.0	1138.6	1354.4	1064.9	1029.4
55°	1455.4	1054.0	1340.7	966.6	958.4
57.5°	1351.6	969.4	1226.0	876.5	898.4
60°	1256.1	887.4	1024.0	800.1	783.7
62.5°	1155.0	808.2	835.6	701.8	685.4
65°	1043.1	723.6	701.8	576.1	576.1
67.5°	922.9	636.2	589.8	497.0	426.0
70°	797.3	551.6	483.3	376.8	333.1
72.5°	663.5	461.5	374.1	292.2	240.3
75°	537.9	368.6	275.8	196.6	191.1
77.5°	412.3	281.2	202.1	152.9	152.9
80°	294.9	202.1	120.1	117.4	120.1
82.5°	185.7	122.9	81.9	87.4	87.4
85°	92.8	60.1	54.6	43.7	41.0
87.5°	24.6	21.8	13.7	13.7	13.7
90°	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	24.47	26.05	24.83	26.37	26.68	23.18	24.77	23.54	25.08	25.39
	3H	26.55	27.98	26.92	28.30	28.66	24.26	25.69	24.64	26.02	26.38
	4H	27.31	28.66	27.71	29.00	29.38	24.51	25.85	24.91	26.20	26.58
	6H	27.84	29.08	28.25	29.44	29.84	24.69	25.93	25.10	26.30	26.69
	8H	27.98	29.17	28.41	29.56	29.96	24.74	25.93	25.17	26.32	26.72
	12H	28.05	29.18	28.48	29.57	30.00	24.76	25.90	25.19	26.28	26.71
4H	2H	24.93	26.28	25.33	26.62	27.00	23.90	25.25	24.30	25.59	25.97
	3H	27.10	28.22	27.51	28.62	29.02	25.15	26.27	25.56	26.66	27.06
	4H	27.95	28.95	28.38	29.37	29.81	25.45	26.46	25.88	26.87	27.31
	6H	28.57	29.45	29.03	29.89	30.35	25.70	26.58	26.16	27.02	27.48
	8H	28.76	29.58	29.22	30.02	30.49	25.77	26.59	26.23	27.04	27.50
	12H	28.86	29.59	29.34	30.07	30.54	25.81	26.55	26.30	27.02	27.49
8H	4H	28.02	28.84	28.48	29.28	29.75	25.72	26.54	26.18	26.98	27.45
	6H	28.70	29.38	29.20	29.87	30.35	26.02	26.70	26.52	27.19	27.67
	8H	28.93	29.54	29.45	30.05	30.54	26.13	26.74	26.64	27.25	27.73
	12H	29.08	29.62	29.59	30.11	30.67	26.21	26.74	26.72	27.24	27.80
12H	4H	28.01	28.74	28.49	29.22	29.69	25.75	26.49	26.23	26.96	27.43
	6H	28.68	29.29	29.19	29.80	30.28	26.06	26.67	26.57	27.17	27.66
	8H	28.95	29.48	29.46	29.97	30.54	26.21	26.74	26.71	27.23	27.80