

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: P845585

Luminaire Tested: SQ2R-PH1-125D-840-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

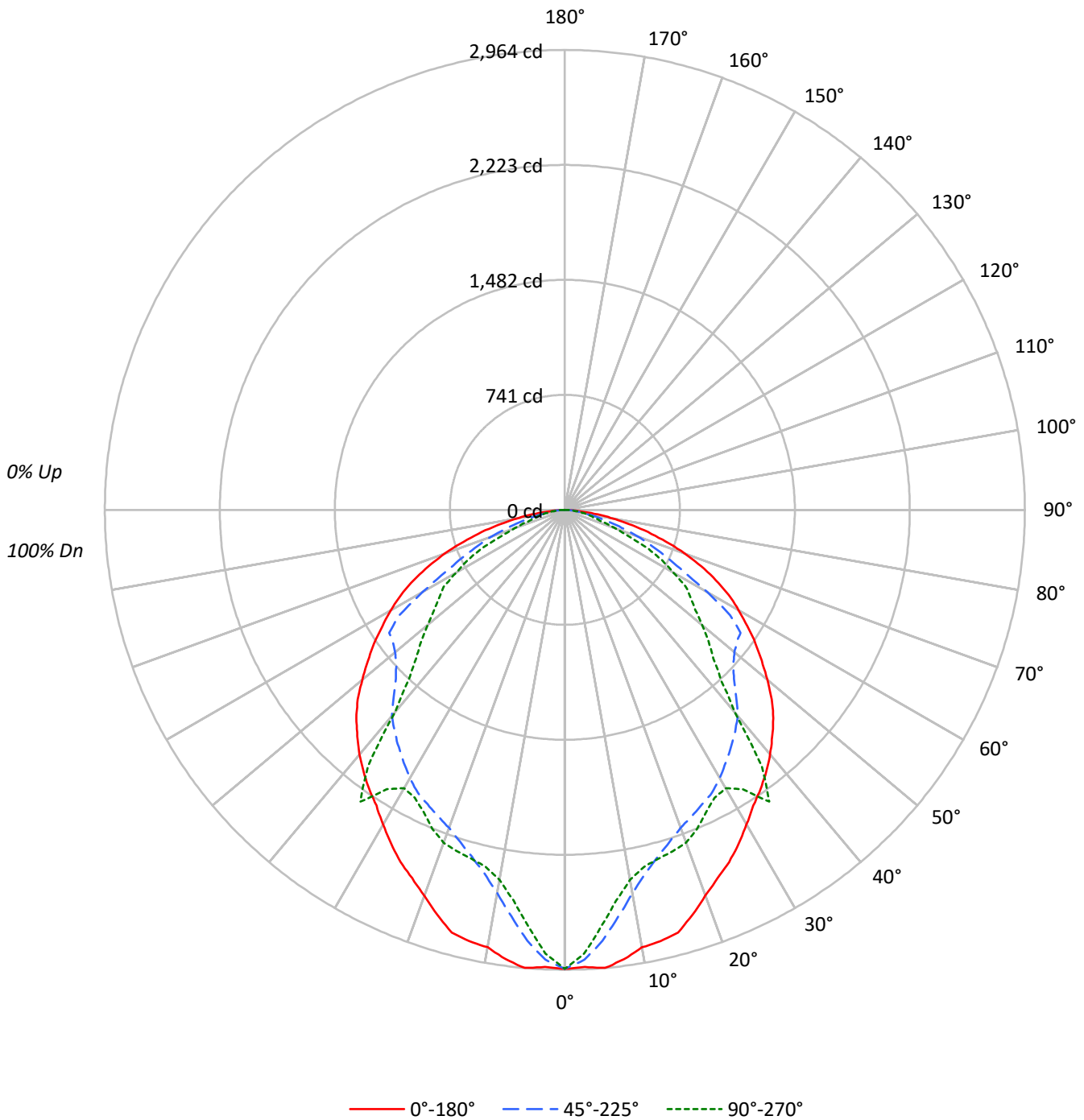
Test Method: LM-79-2019  
Report Number: P845585  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
1250 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6535.2 lumens  
Efficiency: N/A  
Efficacy: 132.8 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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

	0°	45°	90°
0°	47759	47759	47759
5°	48034	45161	43655
10°	46929	41114	39684
15°	47139	38671	38907
20°	45457	37477	39220
25°	44625	37305	38308
30°	43658	37203	38620
35°	43325	36780	45267
40°	43364	36541	35890
45°	43379	35152	30912
50°	42772	35844	28984
55°	42227	38900	27809
60°	41808	34081	26085
65°	41073	27633	22690
70°	38795	23519	16211
75°	34591	17735	12289
80°	28266	11511	11511
85°	17729	10430	7818

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 43379 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.0	4.0
10°-20°	684.1	10.5
20°-30°	1003.3	15.4
30°-40°	1216.1	18.6
40°-50°	1194.7	18.3
50°-60°	1040.8	15.9
60°-70°	721.5	11.0
70°-80°	340.5	5.2
80°-90°	73.3	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°	1948.3	29.8
0°-40°	3164.4	48.4
0°-60°	5399.9	82.6
0°-90°	6535.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6535.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2958	2958	2958	2958	2958	
5°	2964	2961	2786	2699	2694	279
15°	2820	2505	2314	2297	2328	788
25°	2505	2122	2094	2159	2150	1152
35°	2198	1768	1866	2021	2297	1377
45°	1900	1396	1540	1599	1354	1462
55°	1500	1086	1382	996	988	1340
65°	1075	746	723	594	594	1058
75°	554	380	284	203	197	587
85°	96	62	56	45	42	126
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2958.0	2958.0	2958.0	2958.0	2958.0
2.5°	2949.6	2989.0	2901.8	2868.0	2862.4
5°	2963.7	2960.9	2786.4	2699.1	2693.5
7.5°	2921.5	2845.5	2642.8	2544.3	2538.7
10°	2862.4	2730.1	2507.7	2420.5	2420.5
12.5°	2848.3	2620.3	2398.0	2338.9	2355.7
15°	2820.1	2504.9	2313.5	2296.6	2327.6
17.5°	2735.7	2395.1	2243.2	2271.3	2307.9
20°	2645.6	2310.7	2181.2	2248.8	2282.6
22.5°	2569.6	2229.1	2136.2	2212.2	2226.3
25°	2504.9	2122.1	2094.0	2158.7	2150.3
27.5°	2426.1	2026.4	2054.6	2094.0	2091.2
30°	2341.7	1942.0	1995.5	2034.9	2071.5
32.5°	2260.1	1843.5	1930.8	2037.7	2133.4
35°	2198.1	1767.5	1866.0	2020.8	2296.6
37.5°	2130.6	1674.6	1801.3	1925.1	2085.6
40°	2057.4	1573.3	1733.7	1905.4	1702.8
42.5°	1978.6	1494.5	1632.4	1868.8	1491.7
45°	1899.8	1396.0	1539.5	1598.6	1353.8
47.5°	1809.7	1322.8	1472.0	1359.4	1255.3
50°	1702.8	1249.6	1427.0	1215.9	1153.9
52.5°	1598.6	1173.7	1396.0	1097.7	1061.1
55°	1500.1	1086.4	1381.9	996.3	987.9
57.5°	1393.2	999.2	1263.7	903.5	926.0
60°	1294.7	914.7	1055.4	824.7	807.8
62.5°	1190.5	833.1	861.2	723.3	706.4
65°	1075.1	745.8	723.3	593.9	593.9
67.5°	951.3	655.8	607.9	512.2	439.1
70°	821.8	568.5	498.2	388.4	343.4
72.5°	683.9	475.7	385.6	301.2	247.7
75°	554.5	380.0	284.3	202.6	197.0
77.5°	425.0	289.9	208.3	157.6	157.6
80°	304.0	208.3	123.8	121.0	123.8
82.5°	191.4	126.7	84.4	90.1	90.1
85°	95.7	61.9	56.3	45.0	42.2
87.5°	25.3	22.5	14.1	14.1	14.1
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	24.57	26.16	24.94	26.47	26.79	23.28	24.87	23.65	25.19	25.50
	3H	26.65	28.08	27.03	28.41	28.77	24.37	25.80	24.75	26.13	26.49
	4H	27.42	28.76	27.82	29.11	29.49	24.62	25.96	25.01	26.31	26.68
	6H	27.94	29.18	28.35	29.55	29.94	24.79	26.04	25.21	26.40	26.79
	8H	28.09	29.27	28.51	29.66	30.06	24.85	26.03	25.27	26.42	26.82
	12H	28.16	29.29	28.59	29.67	30.10	24.87	26.00	25.30	26.38	26.81
4H	2H	25.04	26.38	25.44	26.73	27.10	24.01	25.35	24.41	25.70	26.08
	3H	27.21	28.32	27.62	28.72	29.12	25.25	26.37	25.66	26.77	27.17
	4H	28.05	29.06	28.48	29.47	29.91	25.56	26.57	25.99	26.98	27.42
	6H	28.68	29.56	29.13	30.00	30.45	25.81	26.68	26.26	27.12	27.58
	8H	28.86	29.68	29.33	30.13	30.59	25.88	26.70	26.34	27.14	27.61
	12H	28.97	29.70	29.45	30.18	30.65	25.92	26.65	26.40	27.13	27.60
8H	4H	28.13	28.95	28.59	29.39	29.85	25.83	26.65	26.29	27.09	27.56
	6H	28.81	29.49	29.30	29.97	30.45	26.13	26.81	26.62	27.30	27.77
	8H	29.04	29.65	29.55	30.15	30.64	26.24	26.84	26.75	27.35	27.84
	12H	29.19	29.72	29.69	30.21	30.78	26.31	26.85	26.82	27.34	27.90
12H	4H	28.11	28.85	28.59	29.32	29.79	25.86	26.59	26.34	27.07	27.54
	6H	28.79	29.39	29.30	29.90	30.39	26.16	26.77	26.67	27.28	27.77
	8H	29.05	29.59	29.56	30.08	30.64	26.31	26.85	26.82	27.34	27.90