

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: P845643

Luminaire Tested: SQ2R-PW1-075D-830-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P845643  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PW1-075D-830-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS  
750 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

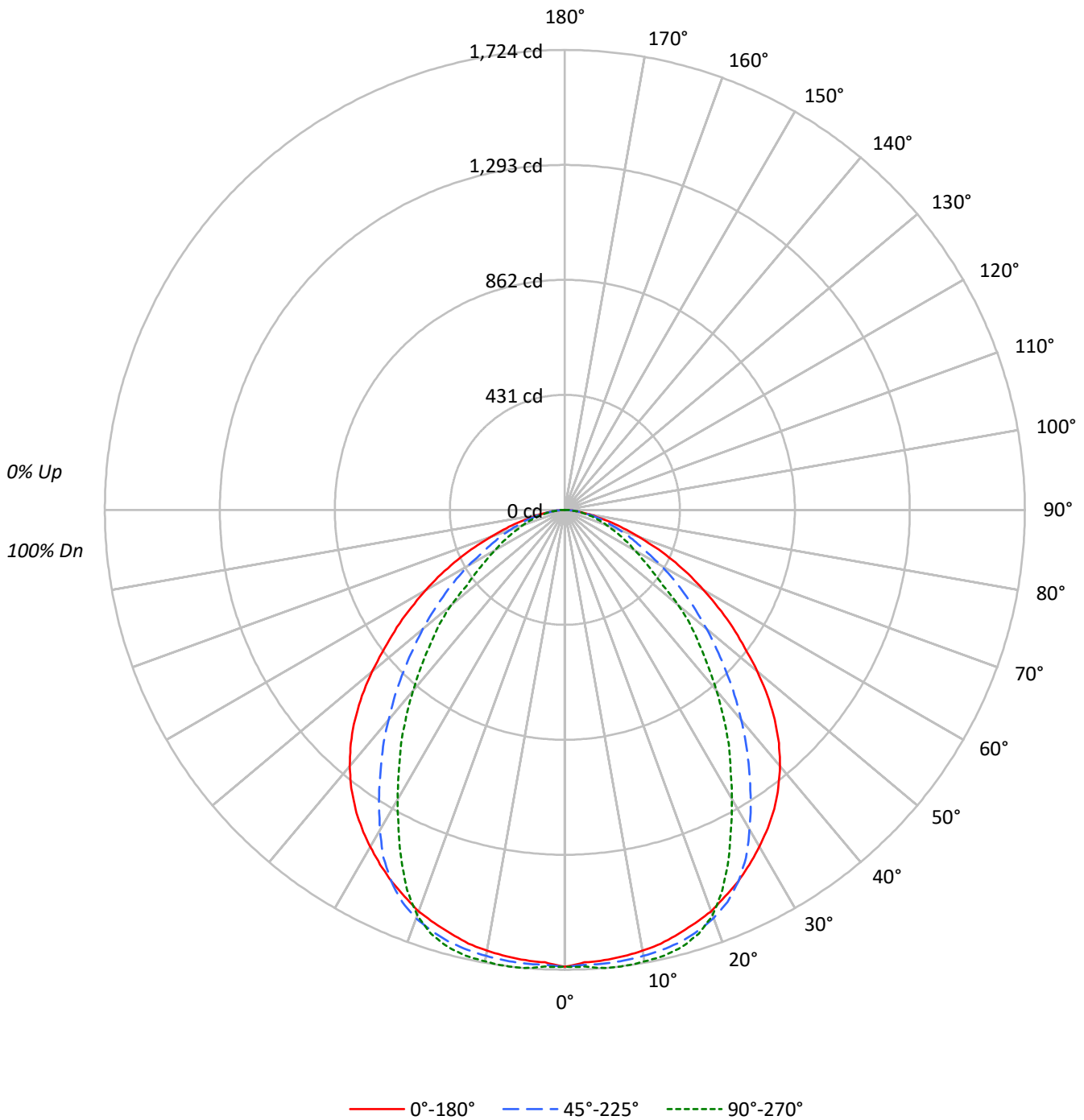
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3799.1 lumens  
Efficiency: N/A  
Efficacy: 142.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.7  
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

TEST NUMBER: P845643

CATALOG NUMBER: SQ2R-PW1-075D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845643

CATALOG NUMBER: SQ2R-PW1-075D-830-UNV-STD-W-4

**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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56			56	
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49			49	
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			44	
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39			39	
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	35			35	
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32			32	
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29			29	

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

	0°	45°	90°
0°	27651	27651	27651
5°	27467	27678	27942
10°	27516	27837	28184
15°	27509	28027	28354
20°	27520	27996	27801
25°	27371	27401	25832
30°	27186	25818	23353
35°	26972	23757	21090
40°	26437	21659	18632
45°	25400	19477	16276
50°	23639	17412	13931
55°	21624	15381	11294
60°	19381	13378	9742
65°	16947	11526	8661
70°	13860	10239	7855
75°	10786	8852	7224
80°	8033	7587	6369
85°	5446	5743	3631

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25400 cd/sqm



TEST NUMBER: P845643

CATALOG NUMBER: SQ2R-PW1-075D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.1	4.3
10°-20°	473.0	12.4
20°-30°	696.4	18.3
30°-40°	760.9	20.0
40°-50°	682.0	18.0
50°-60°	507.9	13.4
60°-70°	320.8	8.4
70°-80°	158.8	4.2
80°-90°	36.2	1.0
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°	1332.5	35.1
0°-40°	2093.4	55.1
0°-60°	3283.2	86.4
0°-90°	3799.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3799.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1713	1713	1713	1713	1713	
5°	1695	1722	1708	1709	1724	161
15°	1646	1678	1677	1688	1696	465
25°	1536	1571	1538	1474	1450	708
35°	1368	1354	1205	1101	1070	854
45°	1112	1021	853	747	713	854
55°	768	693	546	429	401	686
65°	444	406	302	243	227	440
75°	173	186	142	119	116	189
85°	29	38	31	21	20	37
90°	0	0	0	0	0	



TEST NUMBER: P845643

CATALOG NUMBER: SQ2R-PW1-075D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1712.6	1712.6	1712.6	1712.6	1712.6
2.5°	1697.9	1725.6	1707.7	1709.3	1714.2
5°	1694.7	1722.4	1707.7	1709.3	1724.0
7.5°	1688.1	1715.9	1704.4	1709.3	1724.0
10°	1678.3	1707.7	1697.9	1706.1	1719.1
12.5°	1665.3	1696.3	1689.8	1699.6	1712.6
15°	1645.7	1678.3	1676.7	1688.1	1696.3
17.5°	1624.5	1657.1	1655.5	1662.0	1666.9
20°	1601.7	1634.3	1629.4	1618.0	1618.0
22.5°	1569.1	1605.0	1591.9	1556.0	1543.0
25°	1536.4	1570.7	1538.1	1474.5	1450.0
27.5°	1498.9	1528.3	1471.2	1383.1	1348.9
30°	1458.2	1479.4	1384.8	1285.3	1252.6
32.5°	1415.7	1420.6	1296.7	1192.3	1156.4
35°	1368.4	1353.8	1205.3	1101.0	1070.0
37.5°	1314.6	1275.5	1118.9	1009.6	975.4
40°	1254.3	1192.3	1027.6	918.3	884.0
42.5°	1187.4	1105.9	941.1	831.8	796.0
45°	1112.4	1021.0	853.0	747.0	712.8
47.5°	1030.8	939.5	769.9	667.1	639.4
50°	941.1	853.0	693.2	590.4	554.6
52.5°	849.8	773.1	618.2	512.1	460.0
55°	768.2	693.2	546.4	429.0	401.2
57.5°	681.8	614.9	481.2	370.2	347.4
60°	600.2	543.1	414.3	324.6	301.7
62.5°	521.9	473.0	349.0	282.2	264.2
65°	443.6	406.1	301.7	243.0	226.7
67.5°	367.0	342.5	259.3	205.5	194.1
70°	293.6	287.1	216.9	174.5	166.4
72.5°	230.0	234.9	176.2	145.2	140.3
75°	172.9	185.9	141.9	119.1	115.8
77.5°	125.6	145.2	110.9	93.0	89.7
80°	86.4	106.0	81.6	68.5	68.5
82.5°	53.8	68.5	52.2	47.3	47.3
85°	29.4	37.5	31.0	21.2	19.6
87.5°	9.8	14.7	6.5	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845643

CATALOG NUMBER: SQ2R-PW1-075D-830-UNV-STD-W-4

**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	22.50	24.00	22.86	24.31	24.63	19.00	20.50	19.36	20.82	21.13
	3H	23.87	25.21	24.24	25.54	25.90	20.25	21.60	20.63	21.92	22.29
	4H	24.27	25.53	24.67	25.88	26.26	20.72	21.99	21.13	22.33	22.71
	6H	24.50	25.67	24.92	26.03	26.43	21.07	22.23	21.48	22.60	22.99
	8H	24.55	25.66	24.98	26.05	26.45	21.16	22.27	21.59	22.66	23.06
	12H	24.57	25.63	25.00	26.01	26.44	21.19	22.25	21.63	22.64	23.07
4H	2H	22.67	23.93	23.07	24.28	24.66	19.76	21.02	20.16	21.36	21.74
	3H	24.28	25.32	24.69	25.72	26.12	21.20	22.24	21.61	22.64	23.04
	4H	24.81	25.75	25.24	26.16	26.60	21.77	22.70	22.20	23.12	23.56
	6H	25.18	25.99	25.64	26.43	26.89	22.20	23.02	22.66	23.46	23.92
	8H	25.27	26.03	25.73	26.47	26.94	22.32	23.08	22.78	23.52	23.99
	12H	25.31	25.99	25.79	26.47	26.94	22.37	23.05	22.85	23.53	24.00
8H	4H	24.89	25.65	25.36	26.10	26.57	22.14	22.90	22.60	23.34	23.81
	6H	25.35	25.98	25.85	26.47	26.95	22.66	23.29	23.16	23.78	24.26
	8H	25.50	26.06	26.02	26.57	27.06	22.83	23.39	23.34	23.90	24.39
	12H	25.60	26.09	26.11	26.59	27.15	22.92	23.41	23.43	23.91	24.47
12H	4H	24.88	25.56	25.36	26.04	26.51	22.18	22.86	22.66	23.34	23.81
	6H	25.35	25.91	25.86	26.42	26.91	22.73	23.29	23.25	23.80	24.29
	8H	25.54	26.03	26.05	26.53	27.09	22.94	23.44	23.45	23.93	24.50