

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: P845578

Luminaire Tested: SQ2R-PH1-100D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

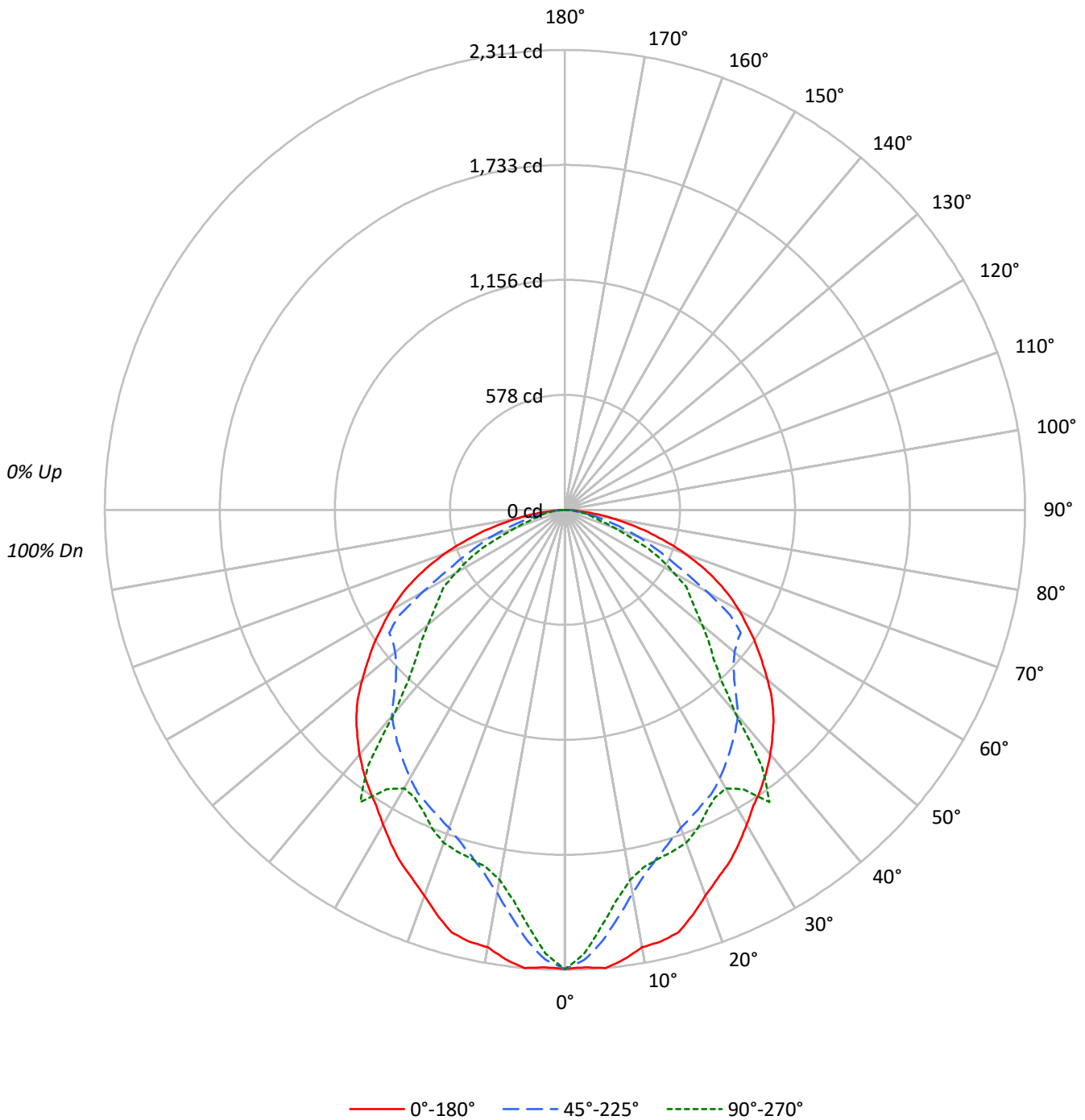
Test Method: LM-79-2019  
Report Number: P845578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5096.6 lumens  
Efficiency: N/A  
Efficacy: 135.5 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): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9969  
Total Harmonic Distortion (THDi): 0.066  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P845578  
CATALOG NUMBER: SQ2R-PH1-100D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845578

CATALOG NUMBER: SQ2R-PH1-100D-835-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	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°	37247	37247	37247
5°	37460	35219	34046
10°	36597	32064	30947
15°	36762	30158	30342
20°	35450	29228	30586
25°	34802	29092	29874
30°	34047	29013	30119
35°	33788	28683	35303
40°	33818	28498	27988
45°	33830	27414	24108
50°	33355	27952	22604
55°	32932	30337	21686
60°	32605	26579	20341
65°	32034	21551	17692
70°	30255	18340	12642
75°	26974	13830	9582
80°	22046	8982	8982
85°	13820	8133	6095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 33830 cd/sqm



TEST NUMBER: P845578

CATALOG NUMBER: SQ2R-PH1-100D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.5	4.0
10°-20°	533.5	10.5
20°-30°	782.4	15.4
30°-40°	948.4	18.6
40°-50°	931.7	18.3
50°-60°	811.6	15.9
60°-70°	562.7	11.0
70°-80°	265.6	5.2
80°-90°	57.1	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°	1519.4	29.8
0°-40°	2467.8	48.4
0°-60°	4211.1	82.6
0°-90°	5096.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5096.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2307	2307	2307	2307	2307	
5°	2311	2309	2173	2105	2101	218
15°	2199	1954	1804	1791	1815	614
25°	1954	1655	1633	1684	1677	899
35°	1714	1378	1455	1576	1791	1074
45°	1482	1089	1201	1247	1056	1140
55°	1170	847	1078	777	770	1045
65°	838	582	564	463	463	825
75°	432	296	222	158	154	458
85°	75	48	44	35	33	98
90°	0	0	0	0	0	



TEST NUMBER: P845578

CATALOG NUMBER: SQ2R-PH1-100D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2306.9	2306.9	2306.9	2306.9	2306.9
2.5°	2300.3	2331.0	2263.0	2236.6	2232.2
5°	2311.3	2309.1	2173.0	2104.9	2100.6
7.5°	2278.3	2219.1	2061.0	1984.2	1979.8
10°	2232.2	2129.1	1955.7	1887.6	1887.6
12.5°	2221.3	2043.5	1870.1	1824.0	1837.2
15°	2199.3	1953.5	1804.2	1791.1	1815.2
17.5°	2133.5	1867.9	1749.4	1771.3	1799.8
20°	2063.2	1802.0	1701.1	1753.8	1780.1
22.5°	2004.0	1738.4	1666.0	1725.2	1736.2
25°	1953.5	1655.0	1633.0	1683.5	1676.9
27.5°	1892.0	1580.4	1602.3	1633.0	1630.8
30°	1826.2	1514.5	1556.2	1586.9	1615.5
32.5°	1762.5	1437.7	1505.7	1589.1	1663.8
35°	1714.2	1378.4	1455.2	1576.0	1791.1
37.5°	1661.6	1306.0	1404.8	1501.3	1626.4
40°	1604.5	1227.0	1352.1	1486.0	1327.9
42.5°	1543.0	1165.5	1273.1	1457.4	1163.3
45°	1481.6	1088.7	1200.6	1246.7	1055.8
47.5°	1411.3	1031.6	1148.0	1060.2	978.9
50°	1327.9	974.6	1112.8	948.2	899.9
52.5°	1246.7	915.3	1088.7	856.0	827.5
55°	1169.9	847.2	1077.7	777.0	770.4
57.5°	1086.5	779.2	985.5	704.6	722.1
60°	1009.7	713.4	823.1	643.1	629.9
62.5°	928.5	649.7	671.7	564.1	550.9
65°	838.5	581.7	564.1	463.1	463.1
67.5°	741.9	511.4	474.1	399.5	342.4
70°	640.9	443.4	388.5	302.9	267.8
72.5°	533.4	370.9	300.7	234.9	193.2
75°	432.4	296.3	221.7	158.0	153.6
77.5°	331.4	226.1	162.4	122.9	122.9
80°	237.1	162.4	96.6	94.4	96.6
82.5°	149.3	98.8	65.8	70.2	70.2
85°	74.6	48.3	43.9	35.1	32.9
87.5°	19.8	17.6	11.0	11.0	11.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845578

CATALOG NUMBER: SQ2R-PH1-100D-835-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	23.71	25.30	24.07	25.61	25.92	22.42	24.01	22.78	24.32	24.64
	3H	25.79	27.22	26.16	27.54	27.91	23.50	24.93	23.88	25.26	25.62
	4H	26.55	27.90	26.95	28.25	28.62	23.75	25.09	24.15	25.44	25.82
	6H	27.08	28.32	27.49	28.69	29.08	23.93	25.17	24.34	25.54	25.93
	8H	27.22	28.41	27.65	28.80	29.20	23.98	25.17	24.41	25.56	25.96
	12H	27.29	28.43	27.72	28.81	29.24	24.00	25.14	24.43	25.52	25.95
4H	2H	24.17	25.52	24.57	25.86	26.24	23.14	24.49	23.54	24.83	25.21
	3H	26.34	27.46	26.75	27.86	28.26	24.39	25.51	24.80	25.91	26.31
	4H	27.19	28.20	27.62	28.61	29.05	24.69	25.70	25.13	26.12	26.55
	6H	27.81	28.69	28.27	29.13	29.59	24.94	25.82	25.40	26.26	26.72
	8H	28.00	28.82	28.46	29.26	29.73	25.01	25.83	25.48	26.28	26.74
	12H	28.10	28.84	28.58	29.31	29.78	25.06	25.79	25.54	26.27	26.74
8H	4H	27.26	28.08	27.72	28.52	28.99	24.96	25.78	25.43	26.23	26.69
	6H	27.94	28.62	28.44	29.11	29.59	25.26	25.94	25.76	26.43	26.91
	8H	28.18	28.78	28.69	29.29	29.78	25.37	25.98	25.88	26.49	26.98
	12H	28.32	28.86	28.83	29.35	29.91	25.45	25.99	25.96	26.48	27.04
12H	4H	27.25	27.98	27.73	28.46	28.93	24.99	25.73	25.47	26.20	26.67
	6H	27.92	28.53	28.43	29.04	29.53	25.30	25.91	25.81	26.42	26.90
	8H	28.19	28.72	28.70	29.22	29.78	25.45	25.98	25.96	26.48	27.04