

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: P845489

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

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845489
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-F-125D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

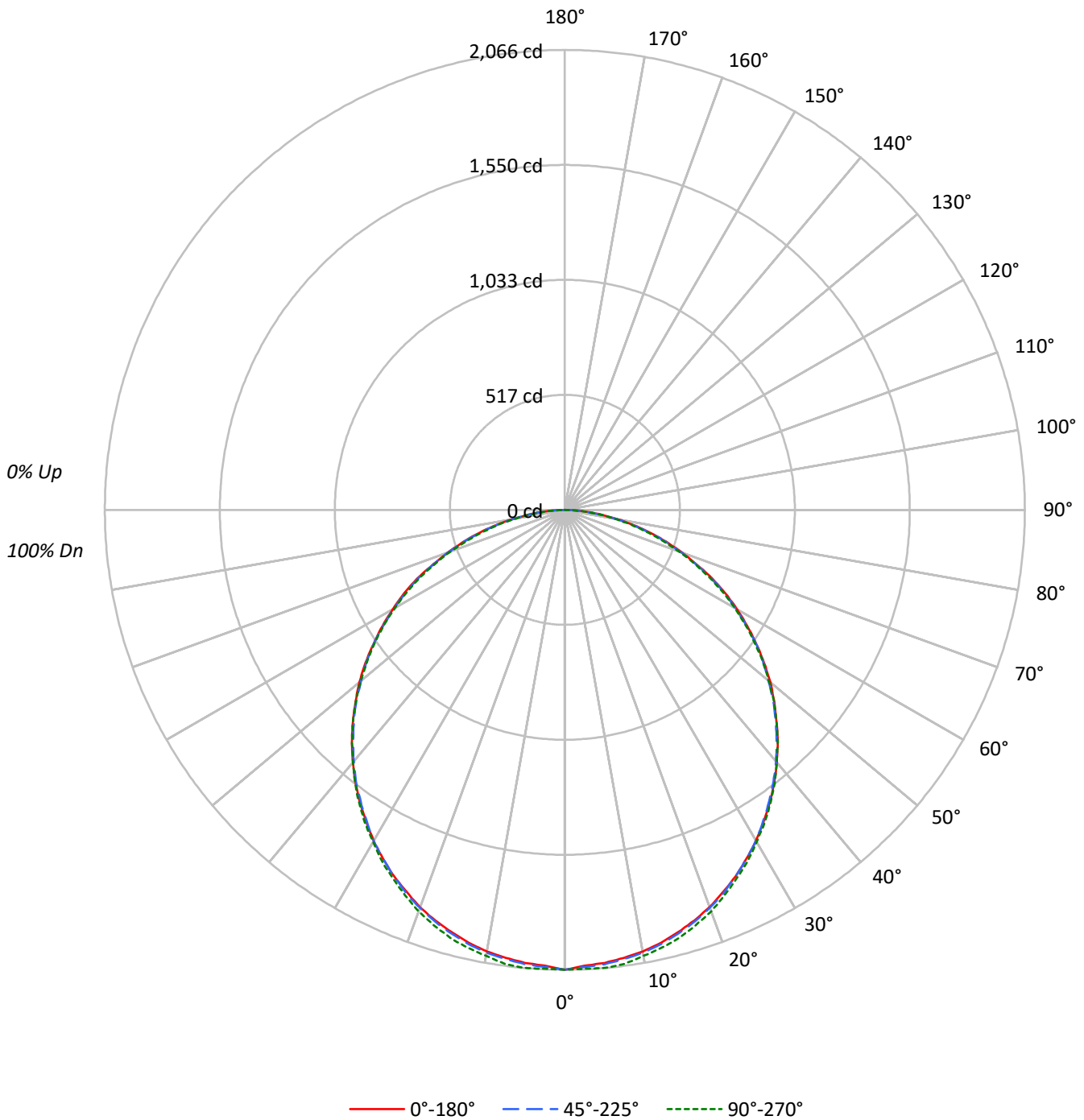
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5799.3 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
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

TEST NUMBER: P845489
CATALOG NUMBER: SQ2R-F-125D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845489

CATALOG NUMBER: SQ2R-F-125D-840-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				
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70				
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59				
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50				
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43				
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38				
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30				
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33356	33356	33356
5°	33117	33209	33483
10°	33039	33131	33362
15°	32837	32933	33262
20°	32642	32691	32981
25°	32341	32341	32541
30°	32009	32009	32114
35°	31621	31509	31732
40°	31202	31084	31202
45°	30718	30590	30718
50°	30258	29976	30047
55°	29551	29472	29315
60°	28811	28630	28446
65°	27958	27633	27312
70°	26309	26176	25643
75°	24753	24229	23525
80°	21981	21460	20669
85°	17729	16154	15117

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 30912 cd/sqm

TEST NUMBER: P845489

CATALOG NUMBER: SQ2R-F-125D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	3.4
10°-20°	558.3	9.6
20°-30°	839.9	14.5
30°-40°	1005.0	17.3
40°-50°	1036.9	17.9
50°-60°	935.4	16.1
60°-70°	713.7	12.3
70°-80°	410.1	7.1
80°-90°	104.5	1.8
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°	1593.7	27.5
0°-40°	2598.6	44.8
0°-60°	4571.0	78.8
0°-90°	5799.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5799.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2043	2072	2049	2052	2066	194
15°	1964	1990	1970	1976	1990	555
25°	1815	1835	1815	1818	1827	836
35°	1604	1616	1599	1604	1610	1004
45°	1345	1354	1340	1342	1345	1038
55°	1050	1055	1047	1041	1041	939
65°	732	729	723	718	715	720
75°	397	394	388	380	377	419
85°	96	90	87	79	82	113
90°	0	0	0	0	0	



TEST NUMBER: P845489

CATALOG NUMBER: SQ2R-F-125D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2065.9	2065.9	2065.9	2065.9	2065.9
2.5°	2049.0	2079.9	2054.6	2060.2	2063.0
5°	2043.3	2071.5	2049.0	2051.8	2065.9
7.5°	2029.3	2060.2	2034.9	2040.5	2057.4
10°	2015.2	2043.3	2020.8	2023.6	2034.9
12.5°	1992.7	2020.8	1998.3	2003.9	2015.2
15°	1964.5	1989.9	1970.2	1975.8	1989.9
17.5°	1933.6	1961.7	1939.2	1947.6	1956.1
20°	1899.8	1922.3	1902.6	1905.4	1919.5
22.5°	1857.6	1880.1	1863.2	1863.2	1874.5
25°	1815.4	1835.1	1815.4	1818.2	1826.6
27.5°	1767.5	1784.4	1767.5	1770.3	1778.8
30°	1716.9	1733.7	1716.9	1719.7	1722.5
32.5°	1660.6	1674.6	1657.7	1660.6	1669.0
35°	1604.3	1615.5	1598.6	1604.3	1609.9
37.5°	1545.2	1553.6	1539.5	1542.4	1548.0
40°	1480.4	1488.9	1474.8	1477.6	1480.4
42.5°	1415.7	1421.3	1407.3	1410.1	1415.7
45°	1345.3	1353.8	1339.7	1342.5	1345.3
47.5°	1275.0	1280.6	1269.3	1266.5	1272.2
50°	1204.6	1207.4	1193.4	1193.4	1196.2
52.5°	1128.6	1131.4	1123.0	1117.4	1120.2
55°	1049.8	1055.4	1047.0	1041.4	1041.4
57.5°	971.0	976.6	965.4	962.6	962.6
60°	892.2	895.0	886.6	883.8	880.9
62.5°	813.4	813.4	805.0	802.1	799.3
65°	731.8	729.0	723.3	717.7	714.9
67.5°	638.9	641.7	636.1	627.6	627.6
70°	557.3	560.1	554.5	543.2	543.2
72.5°	478.5	475.7	472.8	464.4	458.8
75°	396.8	394.0	388.4	380.0	377.1
77.5°	315.2	312.4	309.6	298.3	301.2
80°	236.4	233.6	230.8	222.3	222.3
82.5°	166.1	160.4	157.6	149.2	149.2
85°	95.7	90.1	87.2	78.8	81.6
87.5°	33.8	31.0	28.1	22.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845489

CATALOG NUMBER: SQ2R-F-125D-840-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	23.95	25.59	24.32	25.91	26.22	23.87	25.51	24.24	25.83	26.14
	3H	25.78	27.27	26.16	27.59	27.95	25.66	27.15	26.04	27.48	27.84
	4H	26.48	27.87	26.87	28.22	28.60	26.32	27.72	26.72	28.07	28.45
	6H	26.98	28.28	27.39	28.64	29.03	26.80	28.10	27.21	28.46	28.85
	8H	27.14	28.38	27.57	28.77	29.17	26.94	28.18	27.36	28.57	28.97
	12H	27.24	28.43	27.67	28.81	29.24	27.02	28.21	27.45	28.59	29.02
4H	2H	24.59	25.99	24.99	26.33	26.71	24.53	25.92	24.92	26.27	26.65
	3H	26.64	27.82	27.05	28.21	28.61	26.53	27.71	26.94	28.10	28.50
	4H	27.46	28.52	27.89	28.94	29.37	27.32	28.38	27.75	28.79	29.23
	6H	28.09	29.02	28.55	29.46	29.92	27.92	28.84	28.37	29.28	29.74
	8H	28.30	29.17	28.76	29.61	30.08	28.10	28.97	28.56	29.41	29.88
	12H	28.44	29.22	28.92	29.70	30.17	28.21	28.99	28.69	29.47	29.94
8H	4H	27.77	28.64	28.23	29.08	29.55	27.64	28.51	28.10	28.96	29.42
	6H	28.52	29.24	29.01	29.73	30.21	28.36	29.08	28.85	29.57	30.04
	8H	28.80	29.45	29.31	29.95	30.44	28.61	29.25	29.11	29.76	30.24
	12H	29.00	29.58	29.51	30.07	30.63	28.77	29.35	29.28	29.84	30.40
12H	4H	27.80	28.58	28.28	29.06	29.53	27.68	28.46	28.16	28.94	29.41
	6H	28.57	29.22	29.08	29.73	30.21	28.41	29.06	28.92	29.57	30.05
	8H	28.90	29.48	29.41	29.97	30.53	28.72	29.29	29.22	29.78	30.34