

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: P845480

Luminaire Tested: SQ2R-F-075D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845480
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-075D-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

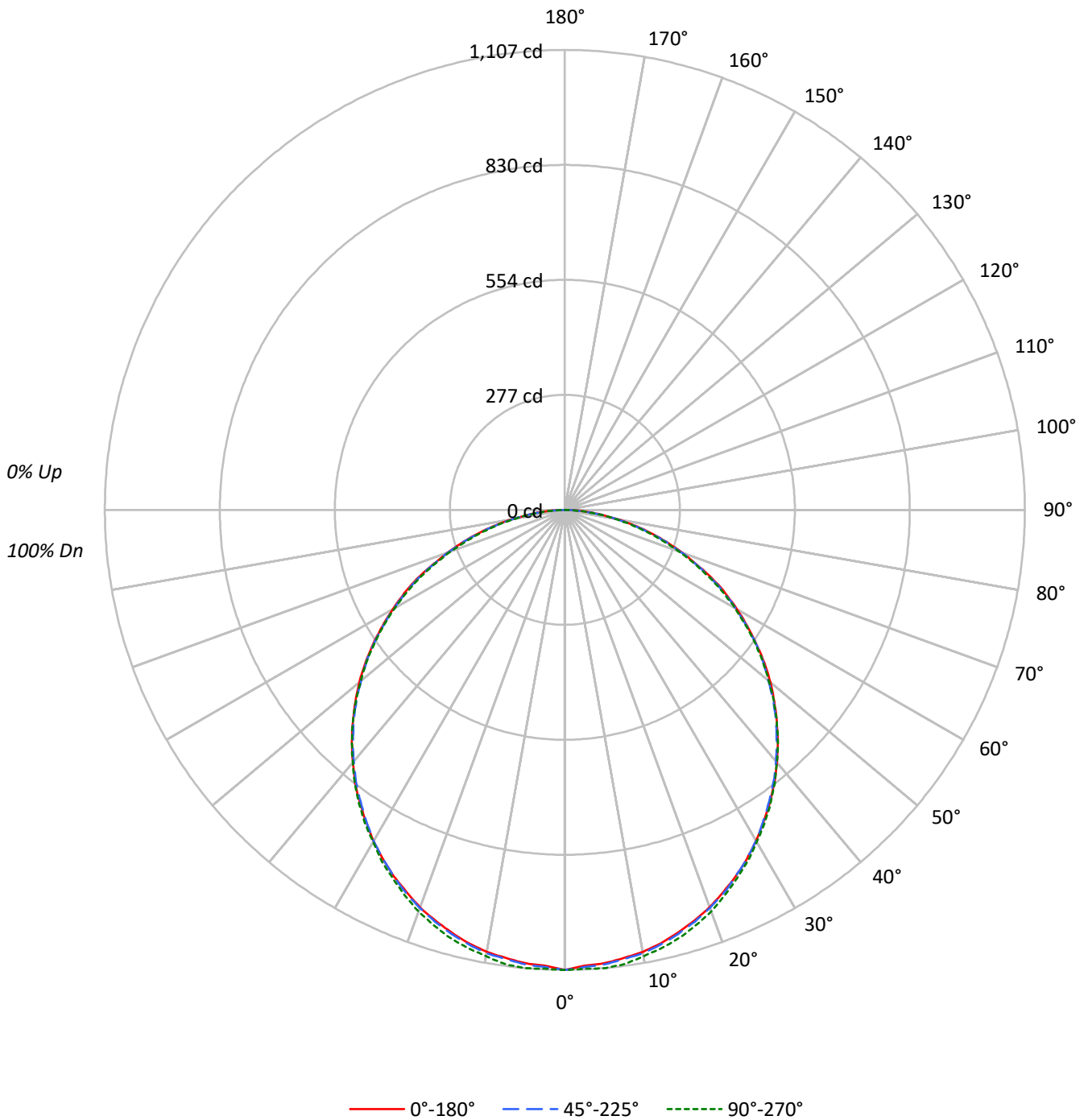
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3108.7 lumens
Efficiency: N/A
Efficacy: 116.4 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): 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: P845480
CATALOG NUMBER: SQ2R-F-075D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845480

CATALOG NUMBER: SQ2R-F-075D-940-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°	17880	17880	17880
5°	17752	17801	17948
10°	17710	17761	17884
15°	17603	17653	17830
20°	17498	17524	17679
25°	17336	17336	17444
30°	17158	17158	17214
35°	16951	16892	17010
40°	16727	16663	16727
45°	16468	16399	16468
50°	16219	16068	16106
55°	15842	15797	15713
60°	15445	15345	15248
65°	14988	14812	14640
70°	14101	14030	13747
75°	13269	12988	12614
80°	11781	11502	11083
85°	9503	8670	8114

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 16570 cd/sqm

TEST NUMBER: P845480

CATALOG NUMBER: SQ2R-F-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	3.4
10°-20°	299.3	9.6
20°-30°	450.3	14.5
30°-40°	538.7	17.3
40°-50°	555.8	17.9
50°-60°	501.4	16.1
60°-70°	382.6	12.3
70°-80°	219.8	7.1
80°-90°	56.0	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°	854.3	27.5
0°-40°	1393.0	44.8
0°-60°	2450.3	78.8
0°-90°	3108.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3108.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1107	1107	1107	1107	1107	
5°	1095	1110	1098	1100	1107	104
15°	1053	1067	1056	1059	1067	297
25°	973	984	973	975	979	448
35°	860	866	857	860	863	538
45°	721	726	718	720	721	557
55°	563	566	561	558	558	503
65°	392	391	388	385	383	386
75°	213	211	208	204	202	224
85°	51	48	47	42	44	60
90°	0	0	0	0	0	



TEST NUMBER: P845480

CATALOG NUMBER: SQ2R-F-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1107.4	1107.4	1107.4	1107.4	1107.4
2.5°	1098.3	1114.9	1101.4	1104.4	1105.9
5°	1095.3	1110.4	1098.3	1099.9	1107.4
7.5°	1087.8	1104.4	1090.8	1093.8	1102.9
10°	1080.2	1095.3	1083.3	1084.8	1090.8
12.5°	1068.2	1083.3	1071.2	1074.2	1080.2
15°	1053.1	1066.7	1056.1	1059.1	1066.7
17.5°	1036.5	1051.6	1039.5	1044.0	1048.6
20°	1018.4	1030.5	1019.9	1021.4	1028.9
22.5°	995.8	1007.8	998.8	998.8	1004.8
25°	973.1	983.7	973.1	974.6	979.2
27.5°	947.5	956.5	947.5	949.0	953.5
30°	920.3	929.4	920.3	921.8	923.3
32.5°	890.1	897.7	888.6	890.1	894.7
35°	860.0	866.0	857.0	860.0	863.0
37.5°	828.3	832.8	825.3	826.8	829.8
40°	793.6	798.1	790.6	792.1	793.6
42.5°	758.9	761.9	754.4	755.9	758.9
45°	721.2	725.7	718.2	719.7	721.2
47.5°	683.5	686.5	680.4	678.9	681.9
50°	645.7	647.2	639.7	639.7	641.2
52.5°	605.0	606.5	602.0	599.0	600.5
55°	562.8	565.8	561.2	558.2	558.2
57.5°	520.5	523.5	517.5	516.0	516.0
60°	478.3	479.8	475.2	473.7	472.2
62.5°	436.0	436.0	431.5	430.0	428.5
65°	392.3	390.8	387.7	384.7	383.2
67.5°	342.5	344.0	341.0	336.4	336.4
70°	298.7	300.2	297.2	291.2	291.2
72.5°	256.5	255.0	253.5	248.9	245.9
75°	212.7	211.2	208.2	203.7	202.2
77.5°	169.0	167.5	166.0	159.9	161.4
80°	126.7	125.2	123.7	119.2	119.2
82.5°	89.0	86.0	84.5	80.0	80.0
85°	51.3	48.3	46.8	42.2	43.8
87.5°	18.1	16.6	15.1	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845480

CATALOG NUMBER: SQ2R-F-075D-940-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	21.79	23.43	22.15	23.74	24.05	21.71	23.35	22.07	23.66	23.98
	3H	23.62	25.10	23.99	25.43	25.79	23.50	24.98	23.87	25.31	25.67
	4H	24.31	25.71	24.71	26.06	26.43	24.16	25.56	24.56	25.90	26.28
	6H	24.82	26.11	25.23	26.48	26.87	24.63	25.93	25.04	26.29	26.68
	8H	24.98	26.22	25.40	26.60	27.00	24.77	26.01	25.20	26.40	26.80
	12H	25.08	26.26	25.50	26.64	27.07	24.85	26.04	25.28	26.42	26.85
4H	2H	22.42	23.82	22.82	24.17	24.54	22.36	23.76	22.76	24.11	24.48
	3H	24.48	25.65	24.88	26.05	26.45	24.37	25.54	24.78	25.94	26.34
	4H	25.30	26.36	25.73	26.77	27.21	25.15	26.21	25.58	26.63	27.06
	6H	25.93	26.86	26.38	27.30	27.75	25.75	26.68	26.20	27.12	27.57
	8H	26.13	27.00	26.59	27.45	27.91	25.93	26.80	26.39	27.24	27.71
	12H	26.27	27.06	26.75	27.53	28.00	26.05	26.83	26.53	27.30	27.77
8H	4H	25.60	26.47	26.06	26.92	27.38	25.48	26.35	25.94	26.79	27.25
	6H	26.35	27.08	26.85	27.56	28.04	26.19	26.91	26.68	27.40	27.87
	8H	26.63	27.28	27.14	27.78	28.27	26.44	27.09	26.95	27.59	28.08
	12H	26.84	27.41	27.34	27.90	28.46	26.61	27.18	27.11	27.67	28.23
12H	4H	25.64	26.42	26.12	26.89	27.36	25.51	26.30	25.99	26.77	27.24
	6H	26.41	27.06	26.91	27.56	28.05	26.25	26.90	26.76	27.40	27.89
	8H	26.74	27.31	27.24	27.80	28.36	26.55	27.12	27.06	27.61	28.17