

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: P845645

Luminaire Tested: SQ2R-PW1-075D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845645
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-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
750 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

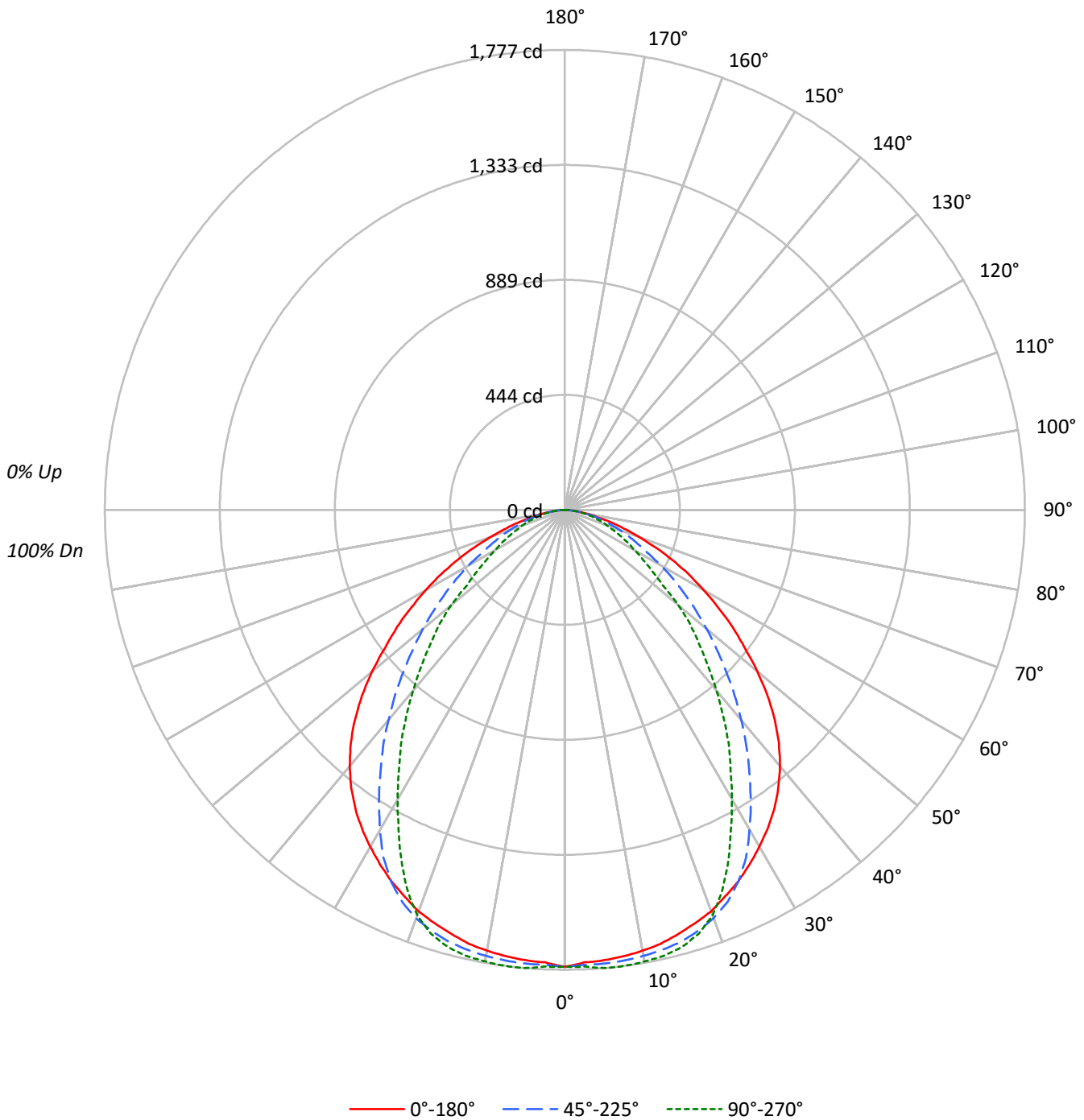
Lumens per Lamp: N/A
Luminaire Lumens: 3915.8 lumens
Efficiency: N/A
Efficacy: 146.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28501	28501	28501
5°	28311	28528	28801
10°	28362	28693	29052
15°	28354	28889	29225
20°	28366	28857	28654
25°	28214	28244	26626
30°	28021	26610	24073
35°	27802	24488	21739
40°	27248	22323	19205
45°	26181	20078	16776
50°	24365	17947	14358
55°	22289	15854	11643
60°	19979	13789	10043
65°	17471	11882	8928
70°	14285	10556	8096
75°	11117	9127	7448
80°	8285	7820	6564
85°	5613	5910	3742

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26181 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.1	4.3
10°-20°	487.5	12.4
20°-30°	717.8	18.3
30°-40°	784.3	20.0
40°-50°	702.9	18.0
50°-60°	523.5	13.4
60°-70°	330.7	8.4
70°-80°	163.7	4.2
80°-90°	37.3	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°	1373.5	35.1
0°-40°	2157.7	55.1
0°-60°	3384.1	86.4
0°-90°	3915.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3915.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1765	1765	1765	1765	1765	
5°	1747	1775	1760	1762	1777	166
15°	1696	1730	1728	1740	1748	479
25°	1584	1619	1585	1520	1495	730
35°	1410	1395	1242	1135	1103	880
45°	1147	1052	879	770	735	880
55°	792	714	563	442	414	707
65°	457	419	311	250	234	453
75°	178	192	146	123	119	195
85°	30	39	32	22	20	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1765.2	1765.2	1765.2	1765.2	1765.2
2.5°	1750.1	1778.7	1760.2	1761.9	1766.9
5°	1746.8	1775.3	1760.2	1761.9	1777.0
7.5°	1740.0	1768.6	1756.8	1761.9	1777.0
10°	1729.9	1760.2	1750.1	1758.5	1772.0
12.5°	1716.5	1748.4	1741.7	1751.8	1765.2
15°	1696.3	1729.9	1728.3	1740.0	1748.4
17.5°	1674.5	1708.1	1706.4	1713.1	1718.2
20°	1650.9	1684.6	1679.5	1667.7	1667.7
22.5°	1617.3	1654.3	1640.8	1603.9	1590.4
25°	1583.7	1619.0	1585.4	1519.8	1494.6
27.5°	1545.0	1575.3	1516.4	1425.6	1390.3
30°	1503.0	1524.8	1427.3	1324.8	1291.2
32.5°	1459.3	1464.3	1336.5	1228.9	1192.0
35°	1410.5	1395.4	1242.4	1134.8	1102.9
37.5°	1355.0	1314.7	1153.3	1040.7	1005.4
40°	1292.8	1228.9	1059.1	946.5	911.2
42.5°	1223.9	1139.8	970.0	857.4	820.4
45°	1146.6	1052.4	879.3	770.0	734.7
47.5°	1062.5	968.4	793.5	687.6	659.0
50°	970.0	879.3	714.5	608.6	571.6
52.5°	875.9	796.9	637.2	527.9	474.1
55°	791.8	714.5	563.2	442.2	413.6
57.5°	702.7	633.8	496.0	381.6	358.1
60°	618.7	559.8	427.0	334.6	311.0
62.5°	538.0	487.5	359.8	290.8	272.4
65°	457.3	418.6	311.0	250.5	233.7
67.5°	378.3	353.0	267.3	211.8	200.1
70°	302.6	295.9	223.6	179.9	171.5
72.5°	237.0	242.1	181.6	149.6	144.6
75°	178.2	191.7	146.3	122.7	119.4
77.5°	129.5	149.6	114.3	95.8	92.5
80°	89.1	109.3	84.1	70.6	70.6
82.5°	55.5	70.6	53.8	48.8	48.8
85°	30.3	38.7	31.9	21.9	20.2
87.5°	10.1	15.1	6.7	5.0	5.0
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	22.60	24.10	22.97	24.42	24.73	19.11	20.61	19.47	20.92	21.24
	3H	23.97	25.32	24.35	25.64	26.01	20.36	21.70	20.73	22.03	22.39
	4H	24.38	25.64	24.78	25.98	26.36	20.83	22.09	21.23	22.44	22.82
	6H	24.61	25.77	25.02	26.14	26.53	21.18	22.34	21.59	22.71	23.10
	8H	24.66	25.77	25.09	26.16	26.56	21.27	22.38	21.70	22.77	23.17
	12H	24.68	25.74	25.11	26.12	26.55	21.30	22.36	21.73	22.74	23.17
4H	2H	22.78	24.04	23.18	24.39	24.77	19.86	21.12	20.26	21.47	21.85
	3H	24.38	25.43	24.79	25.83	26.23	21.30	22.35	21.71	22.75	23.15
	4H	24.92	25.85	25.35	26.27	26.71	21.87	22.81	22.31	23.23	23.67
	6H	25.28	26.10	25.74	26.54	27.00	22.31	23.12	22.77	23.57	24.03
	8H	25.37	26.13	25.84	26.58	27.05	22.43	23.19	22.89	23.63	24.10
	12H	25.42	26.10	25.90	26.57	27.05	22.48	23.15	22.96	23.63	24.10
8H	4H	25.00	25.76	25.46	26.20	26.67	22.24	23.00	22.71	23.45	23.92
	6H	25.46	26.09	25.96	26.58	27.06	22.77	23.40	23.27	23.89	24.37
	8H	25.61	26.17	26.12	26.68	27.17	22.93	23.50	23.45	24.01	24.50
	12H	25.70	26.20	26.21	26.69	27.26	23.02	23.52	23.53	24.01	24.58
12H	4H	24.99	25.67	25.47	26.14	26.62	22.29	22.97	22.77	23.44	23.92
	6H	25.45	26.02	25.97	26.53	27.01	22.84	23.40	23.35	23.91	24.40
	8H	25.64	26.14	26.15	26.63	27.20	23.05	23.55	23.56	24.04	24.60