

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: P845653

Luminaire Tested: SQ2R-PW1-100D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845653
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-PW1-100D-935-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

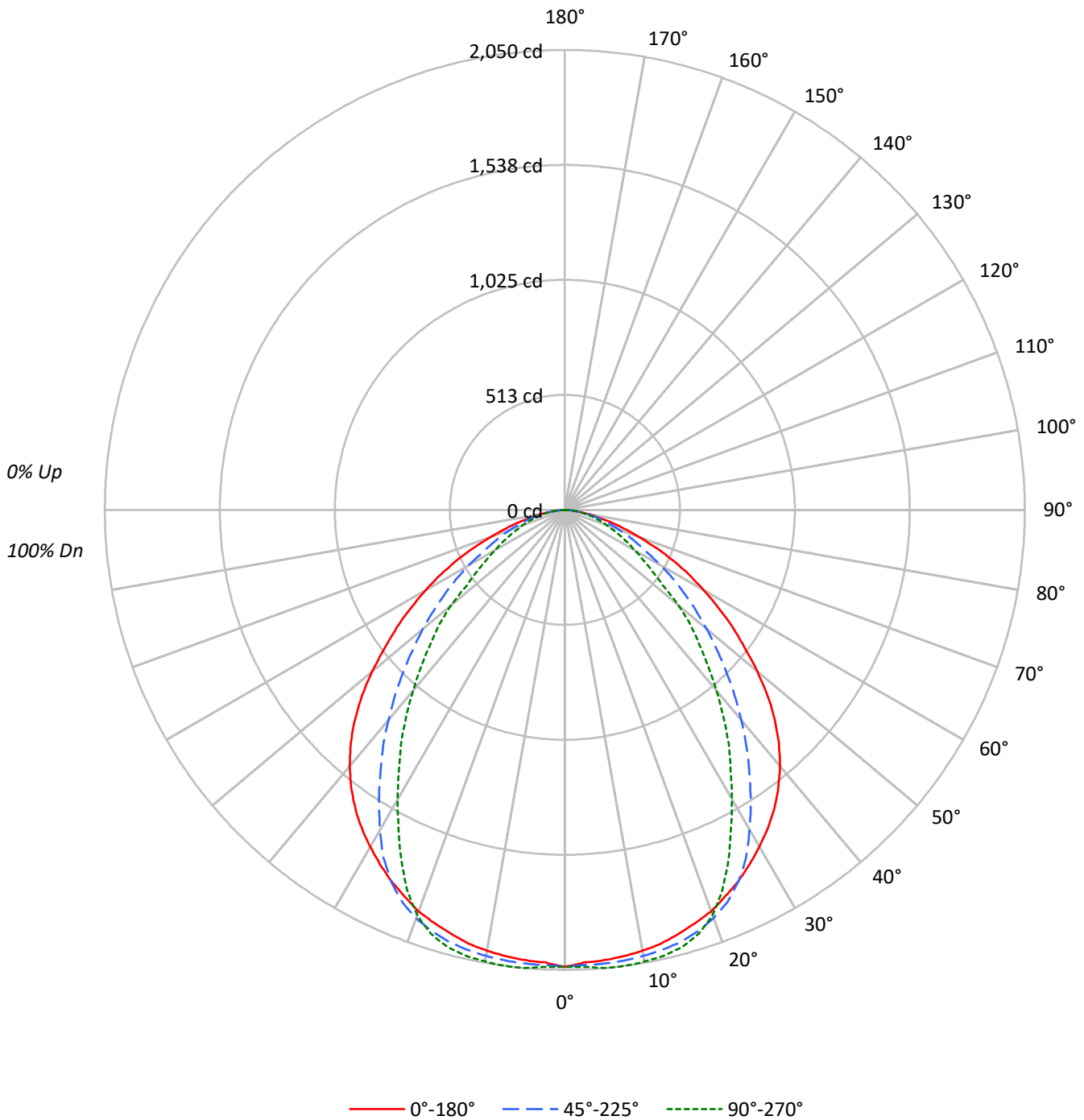
Lumens per Lamp: N/A
Luminaire Lumens: 4517.7 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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				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°	32881	32881	32881
5°	32661	32913	33227
10°	32721	33103	33516
15°	32712	33329	33718
20°	32727	33292	33060
25°	32550	32584	30718
30°	32328	30700	27772
35°	32075	28251	25080
40°	31436	25754	22156
45°	30204	23162	19354
50°	28110	20705	16566
55°	25714	18291	13430
60°	23050	15910	11586
65°	20157	13708	10300
70°	16480	12179	9338
75°	12826	10524	8590
80°	9558	9019	7578
85°	6465	6836	4316

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 30204 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.0	4.3
10°-20°	562.4	12.4
20°-30°	828.2	18.3
30°-40°	904.8	20.0
40°-50°	811.0	18.0
50°-60°	603.9	13.4
60°-70°	381.5	8.4
70°-80°	188.9	4.2
80°-90°	43.1	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°	1584.6	35.1
0°-40°	2489.4	55.1
0°-60°	3904.3	86.4
0°-90°	4517.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4517.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2036	2036	2036	2036	2036	
5°	2015	2048	2031	2033	2050	192
15°	1957	1996	1994	2008	2017	553
25°	1827	1868	1829	1753	1724	842
35°	1627	1610	1433	1309	1272	1016
45°	1323	1214	1014	888	848	1016
55°	914	824	650	510	477	815
65°	528	483	359	289	270	523
75°	206	221	169	142	138	225
85°	35	45	37	25	23	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2036.5	2036.5	2036.5	2036.5	2036.5
2.5°	2019.1	2052.1	2030.7	2032.7	2038.5
5°	2015.2	2048.2	2030.7	2032.7	2050.1
7.5°	2007.5	2040.4	2026.9	2032.7	2050.1
10°	1995.8	2030.7	2019.1	2028.8	2044.3
12.5°	1980.3	2017.2	2009.4	2021.0	2036.5
15°	1957.0	1995.8	1993.9	2007.5	2017.2
17.5°	1931.8	1970.6	1968.7	1976.4	1982.2
20°	1904.7	1943.5	1937.6	1924.1	1924.1
22.5°	1865.9	1908.5	1893.0	1850.4	1834.8
25°	1827.1	1867.8	1829.0	1753.4	1724.3
27.5°	1782.5	1817.4	1749.5	1644.8	1604.0
30°	1734.0	1759.2	1646.7	1528.4	1489.6
32.5°	1683.5	1689.4	1542.0	1417.8	1375.2
35°	1627.3	1609.8	1433.3	1309.2	1272.4
37.5°	1563.3	1516.7	1330.5	1200.6	1159.9
40°	1491.5	1417.8	1221.9	1092.0	1051.2
42.5°	1412.0	1315.0	1119.1	989.2	946.5
45°	1322.8	1214.2	1014.4	888.3	847.6
47.5°	1225.8	1117.2	915.5	793.3	760.3
50°	1119.1	1014.4	824.3	702.1	659.5
52.5°	1010.5	919.4	735.1	609.0	547.0
55°	913.5	824.3	649.8	510.1	477.1
57.5°	810.7	731.2	572.2	440.3	413.1
60°	713.8	645.9	492.7	386.0	358.8
62.5°	620.7	562.5	415.1	335.5	314.2
65°	527.6	483.0	358.8	289.0	269.6
67.5°	436.4	407.3	308.4	244.4	230.8
70°	349.1	341.4	258.0	207.5	197.8
72.5°	273.5	279.3	209.5	172.6	166.8
75°	205.6	221.1	168.7	141.6	137.7
77.5°	149.3	172.6	131.9	110.6	106.7
80°	102.8	126.1	97.0	81.5	81.5
82.5°	64.0	81.5	62.1	56.2	56.2
85°	34.9	44.6	36.9	25.2	23.3
87.5°	11.6	17.5	7.8	5.8	5.8
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	23.10	24.60	23.46	24.91	25.23	19.60	21.10	19.97	21.42	21.73
	3H	24.47	25.81	24.85	26.14	26.50	20.85	22.20	21.23	22.52	22.89
	4H	24.87	26.13	25.27	26.48	26.86	21.33	22.59	21.73	22.94	23.31
	6H	25.11	26.27	25.52	26.64	27.03	21.67	22.84	22.09	23.20	23.60
	8H	25.16	26.26	25.58	26.65	27.06	21.77	22.87	22.19	23.26	23.66
	12H	25.17	26.23	25.60	26.61	27.04	21.80	22.86	22.23	23.24	23.67
4H	2H	23.28	24.54	23.68	24.89	25.26	20.36	21.62	20.76	21.97	22.35
	3H	24.88	25.92	25.29	26.32	26.72	21.80	22.84	22.21	23.24	23.64
	4H	25.41	26.35	25.85	26.77	27.21	22.37	23.31	22.80	23.72	24.16
	6H	25.78	26.59	26.24	27.04	27.50	22.80	23.62	23.26	24.06	24.52
	8H	25.87	26.63	26.33	27.07	27.54	22.92	23.68	23.39	24.13	24.59
	12H	25.91	26.59	26.40	27.07	27.54	22.97	23.65	23.46	24.13	24.60
8H	4H	25.50	26.26	25.96	26.70	27.17	22.74	23.50	23.20	23.94	24.41
	6H	25.96	26.58	26.45	27.08	27.55	23.27	23.89	23.76	24.39	24.86
	8H	26.10	26.67	26.62	27.18	27.67	23.43	23.99	23.95	24.50	24.99
	12H	26.20	26.70	26.71	27.19	27.75	23.52	24.02	24.03	24.51	25.07
12H	4H	25.48	26.16	25.97	26.64	27.11	22.78	23.46	23.27	23.94	24.41
	6H	25.95	26.51	26.46	27.02	27.51	23.33	23.90	23.85	24.41	24.90
	8H	26.14	26.64	26.65	27.13	27.69	23.55	24.04	24.06	24.54	25.10