

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: P845652

Luminaire Tested: SQ2R-PW1-100D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845652
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-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

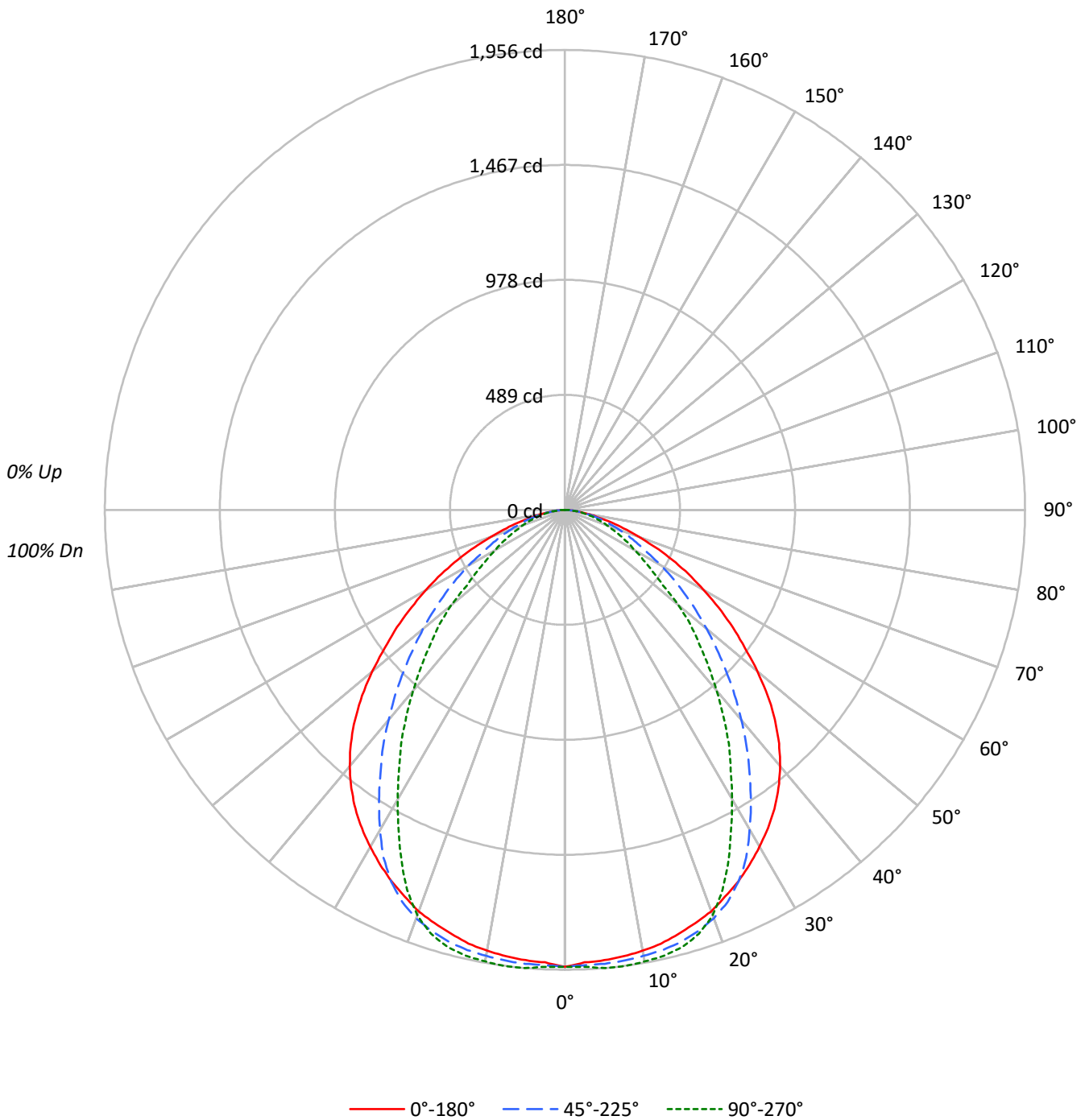
Lumens per Lamp: N/A
Luminaire Lumens: 4310.8 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74	74	74	
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64	64	64	
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56	56	56	
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49	49	49	
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44	44	44	
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39	39	39	
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	35	35	35	
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32	32	32	
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29	29	29	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31376	31376	31376
5°	31165	31405	31705
10°	31222	31586	31982
15°	31214	31803	32174
20°	31227	31768	31545
25°	31059	31092	29311
30°	30848	29295	26500
35°	30606	26958	23930
40°	29997	24576	21142
45°	28821	22101	18468
50°	26824	19758	15807
55°	24538	17453	12816
60°	21994	15180	11057
65°	19232	13081	9830
70°	15725	11622	8913
75°	12239	10044	8197
80°	9121	8601	7225
85°	6169	6521	4113

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 28821 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.1	4.3
10°-20°	536.7	12.4
20°-30°	790.2	18.3
30°-40°	863.4	20.0
40°-50°	773.8	18.0
50°-60°	576.3	13.4
60°-70°	364.0	8.4
70°-80°	180.2	4.2
80°-90°	41.1	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°	1512.0	35.1
0°-40°	2375.4	55.1
0°-60°	3725.5	86.4
0°-90°	4310.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4310.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1943	1943	1943	1943	1943	
5°	1923	1954	1938	1940	1956	183
15°	1867	1904	1903	1916	1925	527
25°	1743	1782	1745	1673	1645	803
35°	1553	1536	1368	1249	1214	969
45°	1262	1159	968	848	809	969
55°	872	787	620	487	455	778
65°	503	461	342	276	257	499
75°	196	211	161	135	131	215
85°	33	43	35	24	22	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1943.3	1943.3	1943.3	1943.3	1943.3
2.5°	1926.6	1958.1	1937.7	1939.6	1945.1
5°	1922.9	1954.4	1937.7	1939.6	1956.2
7.5°	1915.5	1947.0	1934.0	1939.6	1956.2
10°	1904.4	1937.7	1926.6	1935.9	1950.7
12.5°	1889.6	1924.8	1917.4	1928.5	1943.3
15°	1867.4	1904.4	1902.6	1915.5	1924.8
17.5°	1843.4	1880.4	1878.5	1885.9	1891.5
20°	1817.4	1854.5	1848.9	1835.9	1835.9
22.5°	1780.4	1821.1	1806.3	1765.6	1750.8
25°	1743.4	1782.3	1745.3	1673.1	1645.3
27.5°	1700.8	1734.2	1669.4	1569.4	1530.6
30°	1654.6	1678.6	1571.3	1458.4	1421.4
32.5°	1606.5	1612.0	1471.4	1352.9	1312.2
35°	1552.8	1536.1	1367.7	1249.3	1214.1
37.5°	1491.7	1447.3	1269.6	1145.6	1106.8
40°	1423.2	1352.9	1166.0	1042.0	1003.1
42.5°	1347.3	1254.8	1067.9	943.9	903.2
45°	1262.2	1158.6	967.9	847.6	808.8
47.5°	1169.7	1066.0	873.6	757.0	725.5
50°	1067.9	967.9	786.6	670.0	629.3
52.5°	964.2	877.3	701.4	581.1	521.9
55°	871.7	786.6	620.0	486.7	455.3
57.5°	773.6	697.7	546.0	420.1	394.2
60°	681.1	616.3	470.1	368.3	342.4
62.5°	592.2	536.7	396.1	320.2	299.8
65°	503.4	460.8	342.4	275.8	257.3
67.5°	416.4	388.7	294.3	233.2	220.2
70°	333.1	325.7	246.2	198.0	188.8
72.5°	261.0	266.5	199.9	164.7	159.2
75°	196.2	211.0	161.0	135.1	131.4
77.5°	142.5	164.7	125.9	105.5	101.8
80°	98.1	120.3	92.5	77.7	77.7
82.5°	61.1	77.7	59.2	53.7	53.7
85°	33.3	42.6	35.2	24.1	22.2
87.5°	11.1	16.7	7.4	5.6	5.6
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	22.93	24.44	23.30	24.75	25.07	19.44	20.94	19.80	21.25	21.57
	3H	24.31	25.65	24.68	25.98	26.34	20.69	22.03	21.07	22.36	22.72
	4H	24.71	25.97	25.11	26.32	26.70	21.16	22.42	21.56	22.77	23.15
	6H	24.94	26.11	25.36	26.47	26.87	21.51	22.67	21.92	23.04	23.43
	8H	24.99	26.10	25.42	26.49	26.89	21.60	22.71	22.03	23.10	23.50
	12H	25.01	26.07	25.44	26.45	26.88	21.63	22.69	22.06	23.07	23.50
4H	2H	23.11	24.37	23.51	24.72	25.10	20.19	21.45	20.59	21.80	22.18
	3H	24.72	25.76	25.13	26.16	26.56	21.64	22.68	22.05	23.08	23.48
	4H	25.25	26.19	25.68	26.60	27.04	22.21	23.14	22.64	23.56	24.00
	6H	25.62	26.43	26.07	26.87	27.33	22.64	23.46	23.10	23.90	24.36
	8H	25.71	26.47	26.17	26.91	27.38	22.76	23.52	23.22	23.96	24.43
	12H	25.75	26.43	26.23	26.91	27.38	22.81	23.49	23.29	23.97	24.44
8H	4H	25.33	26.09	25.80	26.54	27.01	22.58	23.34	23.04	23.78	24.25
	6H	25.79	26.42	26.29	26.91	27.39	23.10	23.73	23.60	24.22	24.70
	8H	25.94	26.50	26.46	27.01	27.50	23.27	23.83	23.78	24.34	24.83
	12H	26.03	26.53	26.55	27.03	27.59	23.35	23.85	23.86	24.34	24.91
12H	4H	25.32	26.00	25.80	26.48	26.95	22.62	23.30	23.10	23.78	24.25
	6H	25.79	26.35	26.30	26.86	27.35	23.17	23.73	23.68	24.24	24.73
	8H	25.98	26.47	26.49	26.97	27.53	23.38	23.88	23.89	24.37	24.94