

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: P845657

Luminaire Tested: SQ2R-PW1-125D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845657
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-PW1-125D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

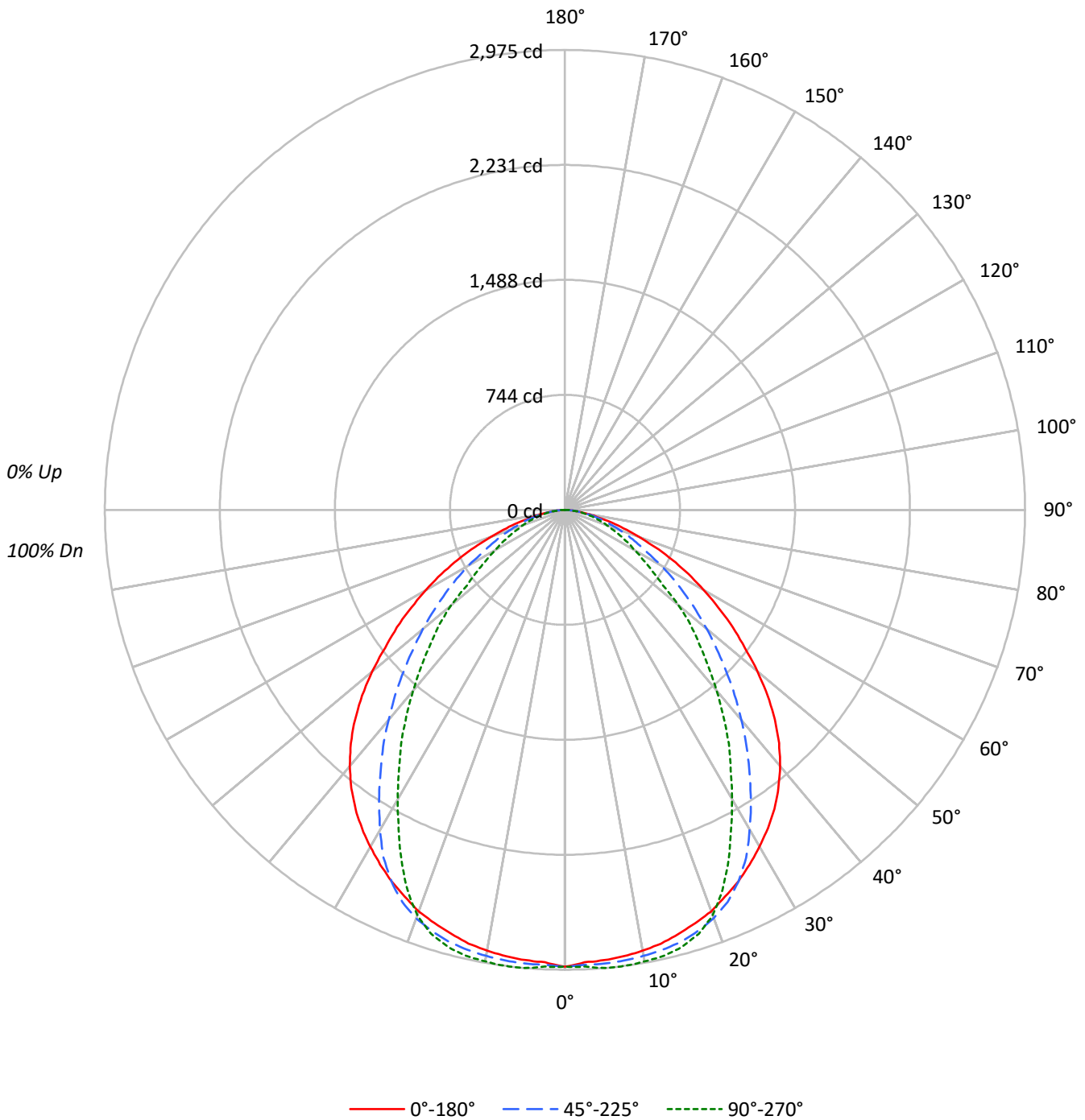
Lumens per Lamp: N/A
Luminaire Lumens: 6555.6 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	47714	47714	47714
5°	47396	47760	48216
10°	47481	48035	48636
15°	47468	48363	48928
20°	47489	48311	47972
25°	47233	47283	44575
30°	46911	44549	40298
35°	46544	40996	36391
40°	45619	37371	32153
45°	43829	33611	28083
50°	40792	30047	24036
55°	37315	26542	19491
60°	33444	23085	16814
65°	29245	19893	14946
70°	23915	17670	13553
75°	18609	15278	12464
80°	13873	13082	10990
85°	9392	9911	6262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 43829 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.5	4.3
10°-20°	816.1	12.4
20°-30°	1201.8	18.3
30°-40°	1312.9	20.0
40°-50°	1176.8	18.0
50°-60°	876.4	13.4
60°-70°	553.6	8.4
70°-80°	274.0	4.2
80°-90°	62.5	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°	2299.4	35.1
0°-40°	3612.3	55.1
0°-60°	5665.5	86.4
0°-90°	6555.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6555.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2955	2955	2955	2955	2955	
5°	2924	2972	2947	2950	2975	278
15°	2840	2896	2893	2913	2927	802
25°	2651	2710	2654	2544	2502	1222
35°	2361	2336	2080	1900	1846	1474
45°	1920	1762	1472	1289	1230	1474
55°	1326	1196	943	740	692	1183
65°	766	701	521	419	391	759
75°	298	321	245	206	200	326
85°	51	65	54	37	34	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2955.2	2955.2	2955.2	2955.2	2955.2
2.5°	2929.9	2977.8	2946.8	2949.6	2958.1
5°	2924.3	2972.1	2946.8	2949.6	2974.9
7.5°	2913.0	2960.9	2941.2	2949.6	2974.9
10°	2896.1	2946.8	2929.9	2944.0	2966.5
12.5°	2873.6	2927.1	2915.8	2932.7	2955.2
15°	2839.8	2896.1	2893.3	2913.0	2927.1
17.5°	2803.3	2859.6	2856.7	2868.0	2876.4
20°	2763.9	2820.1	2811.7	2792.0	2792.0
22.5°	2707.6	2769.5	2747.0	2685.1	2662.5
25°	2651.3	2710.4	2654.1	2544.3	2502.1
27.5°	2586.5	2637.2	2538.7	2386.7	2327.6
30°	2516.2	2552.8	2389.5	2217.8	2161.5
32.5°	2443.0	2451.4	2237.5	2057.4	1995.5
35°	2361.4	2336.0	2079.9	1899.8	1846.3
37.5°	2268.5	2201.0	1930.8	1742.2	1683.1
40°	2164.4	2057.4	1773.1	1584.6	1525.5
42.5°	2049.0	1908.2	1624.0	1435.4	1373.5
45°	1919.5	1761.9	1472.0	1289.0	1229.9
47.5°	1778.8	1621.2	1328.5	1151.1	1103.3
50°	1624.0	1472.0	1196.2	1018.9	956.9
52.5°	1466.4	1334.1	1066.7	883.8	793.7
55°	1325.6	1196.2	942.9	740.2	692.4
57.5°	1176.5	1061.1	830.3	638.9	599.5
60°	1035.7	937.2	714.9	560.1	520.7
62.5°	900.6	816.2	602.3	486.9	456.0
65°	765.5	700.8	520.7	419.4	391.2
67.5°	633.3	591.0	447.5	354.6	334.9
70°	506.6	495.4	374.3	301.2	287.1
72.5°	396.8	405.3	304.0	250.5	242.0
75°	298.3	320.9	244.9	205.5	199.8
77.5°	216.7	250.5	191.4	160.4	154.8
80°	149.2	182.9	140.7	118.2	118.2
82.5°	92.9	118.2	90.1	81.6	81.6
85°	50.7	64.7	53.5	36.6	33.8
87.5°	16.9	25.3	11.3	8.4	8.4
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	24.39	25.89	24.76	26.21	26.52	20.90	22.40	21.26	22.71	23.03
	3H	25.76	27.11	26.14	27.43	27.80	22.15	23.49	22.52	23.82	24.18
	4H	26.17	27.43	26.57	27.78	28.15	22.62	23.88	23.02	24.23	24.61
	6H	26.40	27.56	26.81	27.93	28.32	22.97	24.13	23.38	24.50	24.89
	8H	26.45	27.56	26.88	27.95	28.35	23.06	24.17	23.49	24.56	24.96
	12H	26.47	27.53	26.90	27.91	28.34	23.09	24.15	23.52	24.53	24.96
4H	2H	24.57	25.83	24.97	26.18	26.56	21.65	22.91	22.05	23.26	23.64
	3H	26.17	27.22	26.58	27.62	28.02	23.09	24.14	23.50	24.54	24.94
	4H	26.71	27.64	27.14	28.06	28.50	23.66	24.60	24.10	25.02	25.46
	6H	27.07	27.89	27.53	28.33	28.79	24.10	24.91	24.56	25.36	25.82
	8H	27.16	27.92	27.63	28.37	28.84	24.22	24.98	24.68	25.42	25.89
	12H	27.21	27.89	27.69	28.36	28.84	24.27	24.94	24.75	25.42	25.89
8H	4H	26.79	27.55	27.25	27.99	28.46	24.03	24.79	24.50	25.24	25.71
	6H	27.25	27.88	27.75	28.37	28.85	24.56	25.19	25.06	25.68	26.16
	8H	27.40	27.96	27.91	28.47	28.96	24.72	25.29	25.24	25.80	26.29
	12H	27.49	27.99	28.00	28.48	29.05	24.81	25.31	25.32	25.80	26.37
12H	4H	26.78	27.46	27.26	27.93	28.41	24.08	24.76	24.56	25.23	25.71
	6H	27.24	27.81	27.76	28.32	28.80	24.63	25.19	25.14	25.70	26.19
	8H	27.43	27.93	27.94	28.42	28.99	24.84	25.34	25.35	25.83	26.39