

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: P845627

Luminaire Tested: SQ2R-PR1-100D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845627
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PR1-100D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

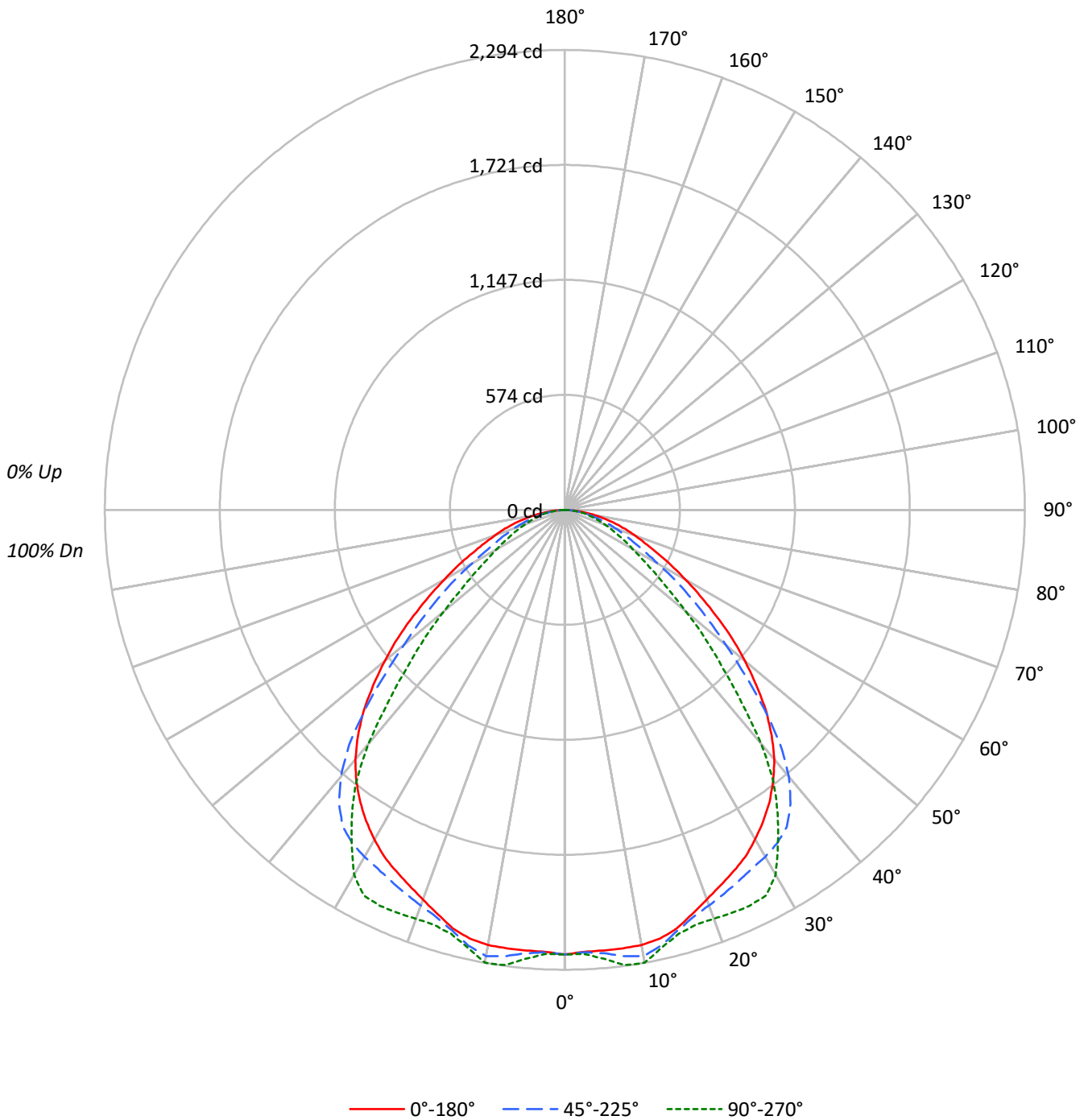
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5334.9 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.33 / 1.36
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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50				
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	52	46	41	51	45	41	39				
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35				
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	35802	35802	35802
5°	35755	35976	36415
10°	36133	37059	37615
15°	36120	36309	36612
20°	35536	36081	37285
25°	35436	36442	38819
30°	35399	37254	39191
35°	35063	38049	36488
40°	34254	36636	32111
45°	32412	32154	25393
50°	29466	26289	19700
55°	25897	21633	15333
60°	22407	17299	12626
65°	19343	14334	11053
70°	17391	12699	9819
75°	15933	10998	9027
80°	13873	8824	8824
85°	10041	7947	4187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 35098 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.1	4.0
10°-20°	620.1	11.6
20°-30°	959.0	18.0
30°-40°	1154.7	21.6
40°-50°	1036.6	19.4
50°-60°	692.0	13.0
60°-70°	402.0	7.5
70°-80°	206.7	3.9
80°-90°	49.7	0.9
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°	1793.2	33.6
0°-40°	2947.9	55.3
0°-60°	4676.5	87.7
0°-90°	5334.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5334.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2217	2217	2217	2217	2217	
5°	2206	2244	2220	2224	2247	211
15°	2161	2251	2172	2179	2190	607
25°	1989	2070	2046	2120	2179	918
35°	1779	1795	1930	1894	1851	1110
45°	1420	1537	1408	1189	1112	1087
55°	920	956	768	594	545	826
65°	506	518	375	305	289	511
75°	255	249	176	149	145	271
85°	54	43	43	29	23	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2217.4	2217.4	2217.4	2217.4	2217.4
2.5°	2206.1	2240.0	2208.4	2210.6	2217.4
5°	2206.1	2244.5	2219.7	2224.2	2246.8
7.5°	2206.1	2258.1	2244.5	2260.4	2289.8
10°	2203.9	2269.4	2260.4	2262.6	2294.3
12.5°	2190.3	2269.4	2226.5	2221.9	2235.5
15°	2160.9	2251.3	2172.2	2179.0	2190.3
17.5°	2113.4	2208.4	2129.3	2151.9	2170.0
20°	2068.2	2160.9	2099.9	2131.5	2170.0
22.5°	2027.6	2120.2	2072.8	2120.2	2176.7
25°	1989.1	2070.5	2045.6	2120.2	2179.0
27.5°	1950.7	2002.7	2018.5	2122.5	2170.0
30°	1898.7	1930.4	1998.2	2086.3	2102.1
32.5°	1842.2	1858.0	1971.0	2007.2	1977.8
35°	1778.9	1794.7	1930.4	1894.2	1851.2
37.5°	1706.6	1733.7	1849.0	1756.3	1708.8
40°	1625.2	1679.5	1738.2	1580.0	1523.5
42.5°	1525.8	1620.7	1591.3	1378.8	1306.5
45°	1419.5	1537.1	1408.2	1189.0	1112.1
47.5°	1295.2	1421.8	1216.1	1017.2	947.1
50°	1173.1	1270.3	1046.6	863.5	784.3
52.5°	1048.8	1112.1	901.9	718.8	648.7
55°	920.0	956.1	768.5	594.5	544.7
57.5°	800.2	825.0	651.0	495.0	456.6
60°	693.9	709.8	535.7	420.4	391.0
62.5°	596.7	608.0	443.0	357.1	336.8
65°	506.3	517.6	375.2	305.2	289.3
67.5°	431.7	438.5	318.7	262.2	246.4
70°	368.4	370.7	269.0	219.3	208.0
72.5°	311.9	307.4	221.5	183.1	176.3
75°	255.4	248.6	176.3	149.2	144.7
77.5°	201.2	194.4	131.1	119.8	119.8
80°	149.2	140.1	94.9	94.9	94.9
82.5°	101.7	88.2	67.8	67.8	65.6
85°	54.2	42.9	42.9	29.4	22.6
87.5°	18.1	18.1	6.8	6.8	6.8
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	23.14	24.63	23.50	24.95	25.26	19.87	21.36	20.23	21.68	21.99
	3H	24.42	25.75	24.80	26.08	26.44	20.98	22.32	21.36	22.64	23.01
	4H	24.90	26.15	25.30	26.50	26.88	21.41	22.66	21.81	23.01	23.39
	6H	25.24	26.40	25.66	26.77	27.16	21.77	22.92	22.18	23.29	23.68
	8H	25.34	26.44	25.77	26.83	27.23	21.87	22.97	22.30	23.36	23.76
	12H	25.39	26.44	25.82	26.82	27.25	21.90	22.95	22.33	23.33	23.76
4H	2H	23.29	24.54	23.69	24.89	25.27	20.51	21.76	20.91	22.11	22.49
	3H	24.82	25.85	25.23	26.25	26.65	21.83	22.86	22.24	23.27	23.67
	4H	25.44	26.36	25.87	26.78	27.22	22.36	23.29	22.79	23.70	24.14
	6H	25.92	26.72	26.38	27.17	27.63	22.83	23.63	23.29	24.08	24.54
	8H	26.06	26.81	26.53	27.26	27.73	22.96	23.71	23.42	24.16	24.63
	12H	26.14	26.81	26.62	27.29	27.76	23.01	23.68	23.49	24.16	24.63
8H	4H	25.50	26.26	25.97	26.70	27.17	22.71	23.46	23.17	23.91	24.37
	6H	26.07	26.69	26.57	27.18	27.66	23.26	23.88	23.76	24.38	24.85
	8H	26.27	26.83	26.78	27.34	27.83	23.45	24.01	23.96	24.52	25.01
	12H	26.40	26.89	26.91	27.39	27.95	23.54	24.03	24.05	24.52	25.09
12H	4H	25.49	26.16	25.97	26.64	27.11	22.75	23.42	23.23	23.90	24.37
	6H	26.06	26.62	26.57	27.13	27.62	23.32	23.88	23.84	24.39	24.88
	8H	26.29	26.79	26.80	27.28	27.85	23.55	24.05	24.06	24.54	25.11