

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: P845626

Luminaire Tested: SQ2R-PR1-100D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845626
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-835-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

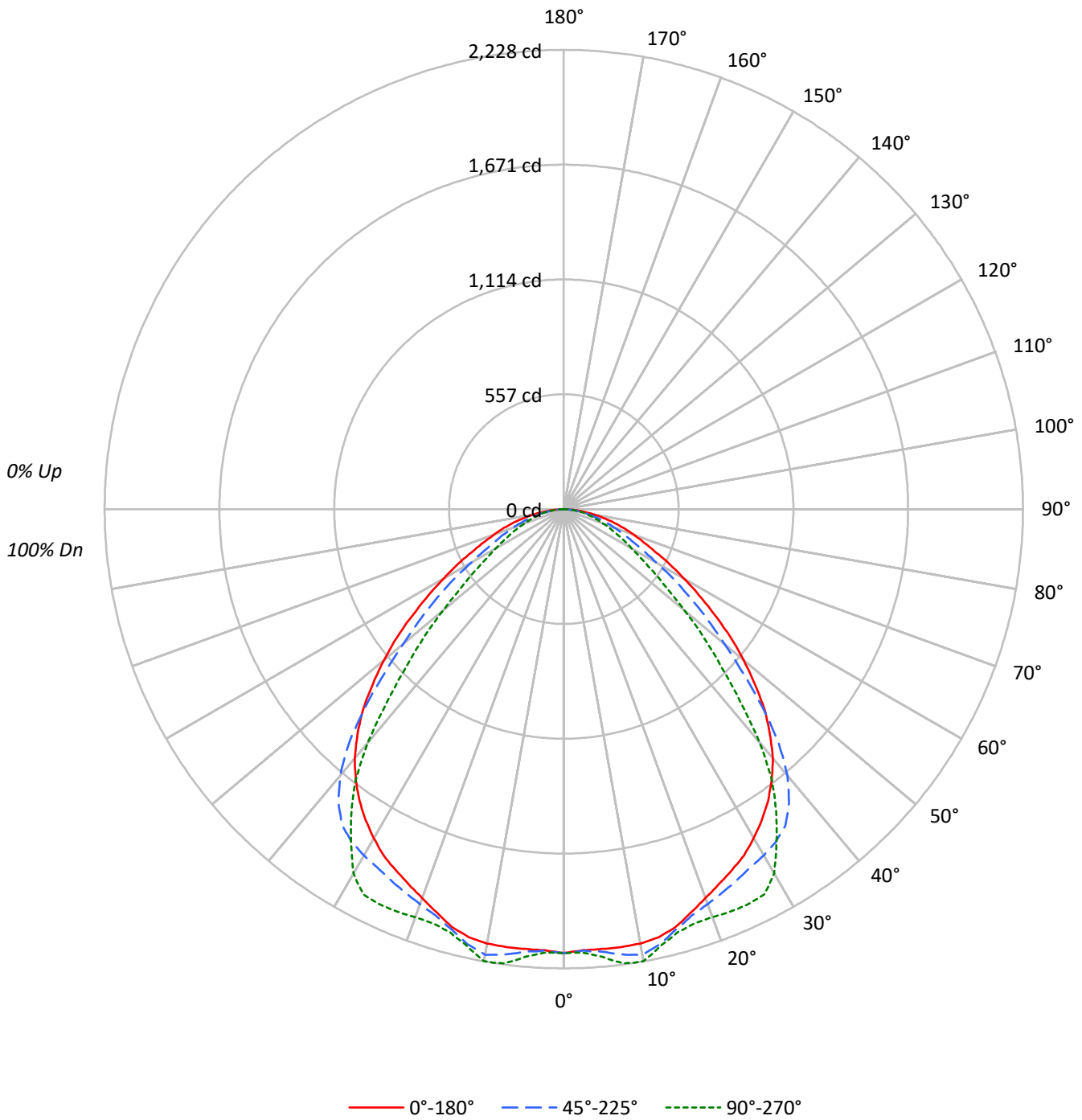
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5180.5 lumens
Efficiency: N/A
Efficacy: 137.8 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			100	
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
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	52	46	41	51	45	41	39			39	
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35			35	
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32	
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29			29	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34765	34765	34765
5°	34721	34934	35362
10°	35087	35985	36526
15°	35076	35258	35552
20°	34508	35036	36204
25°	34410	35388	37695
30°	34373	36174	38057
35°	34048	36947	35433
40°	33264	35576	31181
45°	31474	31223	24658
50°	28615	25528	19130
55°	25146	21008	14891
60°	21758	16798	12261
65°	18785	13922	10735
70°	16891	12331	9531
75°	15471	10680	8765
80°	13473	8573	8573
85°	9763	7725	4057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 34082 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.9	4.0
10°-20°	602.2	11.6
20°-30°	931.2	18.0
30°-40°	1121.3	21.6
40°-50°	1006.6	19.4
50°-60°	672.0	13.0
60°-70°	390.4	7.5
70°-80°	200.7	3.9
80°-90°	48.3	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°	1741.3	33.6
0°-40°	2862.6	55.3
0°-60°	4541.1	87.7
0°-90°	5180.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5180.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2153	2153	2153	2153	2153	
5°	2142	2180	2155	2160	2182	204
15°	2098	2186	2109	2116	2127	590
25°	1932	2011	1986	2059	2116	891
35°	1727	1743	1874	1839	1798	1078
45°	1378	1493	1367	1154	1080	1056
55°	893	928	746	577	529	802
65°	492	503	364	296	281	496
75°	248	241	171	145	140	263
85°	53	42	42	28	22	66
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2153.2	2153.2	2153.2	2153.2	2153.2
2.5°	2142.3	2175.2	2144.5	2146.6	2153.2
5°	2142.3	2179.6	2155.4	2159.8	2181.8
7.5°	2142.3	2192.7	2179.6	2194.9	2223.5
10°	2140.1	2203.7	2194.9	2197.1	2227.9
12.5°	2126.9	2203.7	2162.0	2157.6	2170.8
15°	2098.4	2186.2	2109.3	2115.9	2126.9
17.5°	2052.3	2144.5	2067.6	2089.6	2107.1
20°	2008.4	2098.4	2039.1	2069.8	2107.1
22.5°	1968.9	2058.9	2012.8	2058.9	2113.7
25°	1931.5	2010.6	1986.4	2058.9	2115.9
27.5°	1894.2	1944.7	1960.1	2061.0	2107.1
30°	1843.7	1874.5	1940.3	2025.9	2041.3
32.5°	1788.9	1804.2	1914.0	1949.1	1920.6
35°	1727.4	1742.8	1874.5	1839.4	1797.7
37.5°	1657.2	1683.5	1795.5	1705.5	1659.4
40°	1578.2	1630.8	1687.9	1534.3	1479.4
42.5°	1481.6	1573.8	1545.2	1338.9	1268.7
45°	1378.4	1492.6	1367.4	1154.5	1079.9
47.5°	1257.7	1380.6	1180.9	987.7	919.7
50°	1139.2	1233.6	1016.3	838.5	761.6
52.5°	1018.5	1079.9	875.8	698.0	629.9
55°	893.3	928.5	746.3	577.3	529.0
57.5°	777.0	801.2	632.1	480.7	443.4
60°	673.8	689.2	520.2	408.3	379.7
62.5°	579.5	590.4	430.2	346.8	327.0
65°	491.7	502.6	364.4	296.3	281.0
67.5°	419.2	425.8	309.5	254.6	239.2
70°	357.8	360.0	261.2	212.9	201.9
72.5°	302.9	298.5	215.1	177.8	171.2
75°	248.0	241.4	171.2	144.9	140.5
77.5°	195.3	188.8	127.3	116.3	116.3
80°	144.9	136.1	92.2	92.2	92.2
82.5°	98.8	85.6	65.8	65.8	63.7
85°	52.7	41.7	41.7	28.5	21.9
87.5°	17.6	17.6	6.6	6.6	6.6
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	23.04	24.53	23.40	24.85	25.16	19.77	21.26	20.13	21.57	21.89
	3H	24.32	25.65	24.69	25.98	26.34	20.88	22.21	21.26	22.54	22.90
	4H	24.80	26.05	25.20	26.40	26.78	21.31	22.56	21.71	22.91	23.28
	6H	25.14	26.30	25.55	26.66	27.06	21.67	22.82	22.08	23.19	23.58
	8H	25.24	26.34	25.67	26.73	27.13	21.77	22.87	22.20	23.26	23.66
	12H	25.29	26.34	25.72	26.72	27.15	21.80	22.85	22.23	23.23	23.66
4H	2H	23.19	24.44	23.59	24.79	25.17	20.41	21.66	20.81	22.01	22.39
	3H	24.72	25.75	25.13	26.15	26.55	21.73	22.76	22.14	23.16	23.56
	4H	25.33	26.26	25.77	26.68	27.12	22.26	23.19	22.69	23.60	24.04
	6H	25.82	26.62	26.28	27.07	27.53	22.73	23.53	23.18	23.97	24.43
	8H	25.96	26.71	26.42	27.16	27.62	22.86	23.61	23.32	24.06	24.52
	12H	26.04	26.71	26.52	27.19	27.66	22.91	23.58	23.39	24.06	24.53
8H	4H	25.40	26.15	25.87	26.60	27.07	22.61	23.36	23.07	23.80	24.27
	6H	25.97	26.59	26.47	27.08	27.56	23.16	23.78	23.66	24.27	24.75
	8H	26.17	26.73	26.68	27.24	27.73	23.35	23.90	23.86	24.42	24.90
	12H	26.30	26.79	26.81	27.28	27.85	23.43	23.93	23.94	24.42	24.99
12H	4H	25.39	26.06	25.87	26.54	27.01	22.65	23.32	23.13	23.80	24.27
	6H	25.95	26.51	26.47	27.03	27.51	23.22	23.78	23.73	24.29	24.78
	8H	26.19	26.69	26.70	27.18	27.75	23.45	23.95	23.96	24.44	25.01