

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: P845571

Luminaire Tested: SQ2R-PH1-075D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845571
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PH1-075D-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

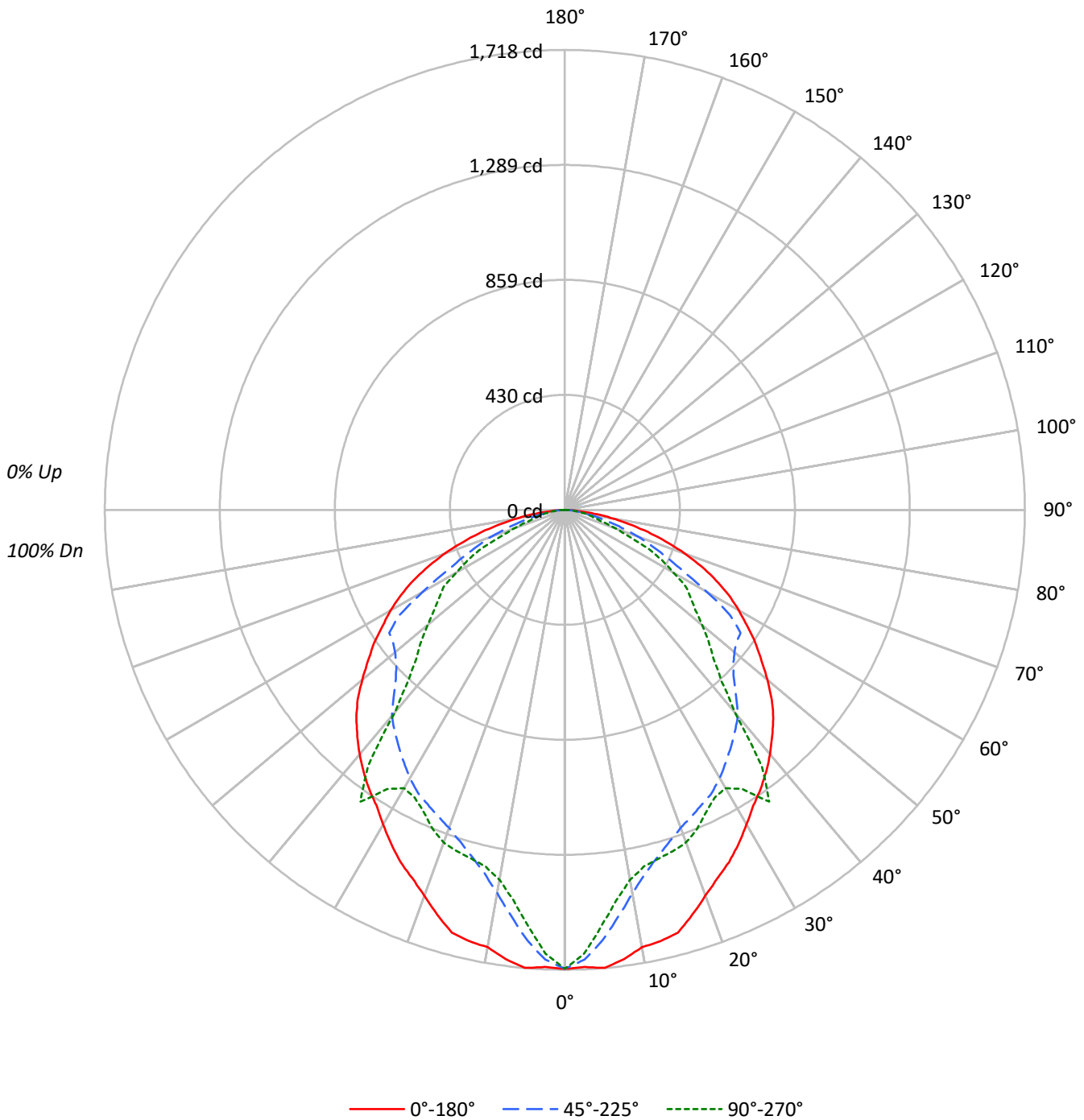
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3787.2 lumens
Efficiency: N/A
Efficacy: 141.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.03 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27677	27677	27677
5°	27836	26170	25298
10°	27196	23827	22997
15°	27318	22410	22547
20°	26344	21720	22728
25°	25860	21618	22199
30°	25299	21559	22380
35°	25107	21315	26233
40°	25130	21176	20799
45°	25140	20372	17913
50°	24787	20770	16797
55°	24470	22542	16116
60°	24228	19750	15116
65°	23805	16015	13146
70°	22485	13629	9394
75°	20044	10274	7124
80°	16383	6676	6676
85°	10282	6039	4539

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25140 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.2	4.0
10°-20°	396.4	10.5
20°-30°	581.4	15.4
30°-40°	704.7	18.6
40°-50°	692.3	18.3
50°-60°	603.1	15.9
60°-70°	418.1	11.0
70°-80°	197.3	5.2
80°-90°	42.5	1.1
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°	1129.1	29.8
0°-40°	1833.8	48.4
0°-60°	3129.3	82.6
0°-90°	3787.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3787.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1718	1716	1615	1564	1561	162
15°	1634	1452	1341	1331	1349	456
25°	1452	1230	1214	1251	1246	668
35°	1274	1024	1081	1171	1331	798
45°	1101	809	892	926	784	847
55°	869	630	801	577	572	777
65°	623	432	419	344	344	613
75°	321	220	165	117	114	340
85°	56	36	33	26	24	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1714.2	1714.2	1714.2	1714.2	1714.2
2.5°	1709.3	1732.2	1681.6	1662.0	1658.8
5°	1717.5	1715.9	1614.7	1564.2	1560.9
7.5°	1693.0	1649.0	1531.5	1474.5	1471.2
10°	1658.8	1582.1	1453.3	1402.7	1402.7
12.5°	1650.6	1518.5	1389.6	1355.4	1365.2
15°	1634.3	1451.6	1340.7	1330.9	1348.9
17.5°	1585.4	1388.0	1299.9	1316.3	1337.5
20°	1533.2	1339.1	1264.1	1303.2	1322.8
22.5°	1489.1	1291.8	1238.0	1282.0	1290.2
25°	1451.6	1229.8	1213.5	1251.0	1246.1
27.5°	1406.0	1174.4	1190.7	1213.5	1211.9
30°	1357.0	1125.4	1156.4	1179.2	1200.4
32.5°	1309.7	1068.3	1118.9	1180.9	1236.3
35°	1273.8	1024.3	1081.4	1171.1	1330.9
37.5°	1234.7	970.5	1043.9	1115.6	1208.6
40°	1192.3	911.8	1004.7	1104.2	986.8
42.5°	1146.6	866.1	946.0	1083.0	864.5
45°	1101.0	809.0	892.2	926.4	784.5
47.5°	1048.8	766.6	853.0	787.8	727.4
50°	986.8	724.2	826.9	704.6	668.7
52.5°	926.4	680.1	809.0	636.1	614.9
55°	869.3	629.6	800.8	577.4	572.5
57.5°	807.4	579.0	732.3	523.6	536.6
60°	750.3	530.1	611.6	477.9	468.1
62.5°	689.9	482.8	499.1	419.2	409.4
65°	623.1	432.2	419.2	344.1	344.1
67.5°	551.3	380.0	352.3	296.8	254.4
70°	476.3	329.5	288.7	225.1	199.0
72.5°	396.3	275.6	223.5	174.5	143.5
75°	321.3	220.2	164.7	117.4	114.2
77.5°	246.3	168.0	120.7	91.3	91.3
80°	176.2	120.7	71.8	70.1	71.8
82.5°	110.9	73.4	48.9	52.2	52.2
85°	55.5	35.9	32.6	26.1	24.5
87.5°	14.7	13.0	8.2	8.2	8.2
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	22.68	24.26	23.04	24.58	24.89	21.39	22.98	21.75	23.29	23.60
	3H	24.76	26.19	25.13	26.51	26.87	22.47	23.90	22.85	24.23	24.59
	4H	25.52	26.87	25.92	27.21	27.59	22.72	24.06	23.12	24.41	24.79
	6H	26.05	27.29	26.46	27.65	28.05	22.90	24.14	23.31	24.51	24.90
	8H	26.19	27.38	26.62	27.77	28.17	22.95	24.14	23.38	24.53	24.93
	12H	26.26	27.39	26.69	27.78	28.21	22.97	24.11	23.40	24.49	24.92
4H	2H	23.14	24.48	23.54	24.83	25.21	22.11	23.46	22.51	23.80	24.18
	3H	25.31	26.43	25.72	26.83	27.23	23.36	24.48	23.77	24.87	25.27
	4H	26.16	27.16	26.59	27.58	28.02	23.66	24.67	24.09	25.08	25.52
	6H	26.78	27.66	27.24	28.10	28.56	23.91	24.79	24.37	25.23	25.69
	8H	26.97	27.79	27.43	28.23	28.70	23.98	24.80	24.44	25.25	25.71
	12H	27.07	27.80	27.55	28.28	28.75	24.02	24.76	24.51	25.23	25.70
8H	4H	26.23	27.05	26.69	27.49	27.96	23.93	24.75	24.39	25.19	25.66
	6H	26.91	27.59	27.41	28.08	28.56	24.23	24.91	24.73	25.40	25.88
	8H	27.14	27.75	27.66	28.26	28.75	24.34	24.95	24.85	25.46	25.94
	12H	27.29	27.83	27.80	28.32	28.88	24.42	24.95	24.93	25.45	26.01
12H	4H	26.22	26.95	26.70	27.43	27.90	23.96	24.70	24.44	25.17	25.64
	6H	26.89	27.50	27.40	28.01	28.49	24.27	24.88	24.78	25.38	25.87
	8H	27.16	27.69	27.67	28.18	28.75	24.42	24.95	24.92	25.44	26.01