

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: P845621

Luminaire Tested: SQ2R-PR1-075D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845621
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-PR1-075D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
750 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

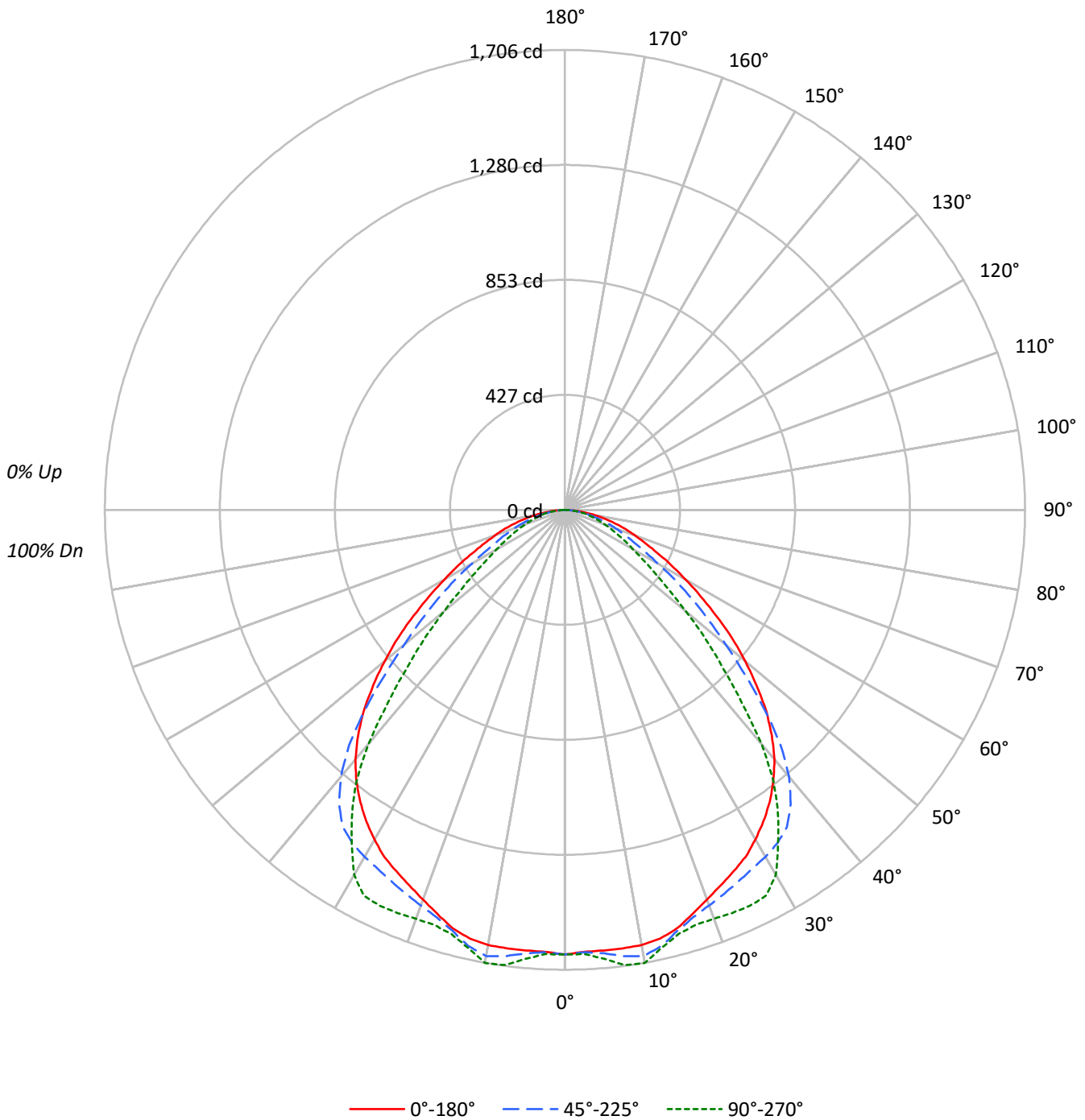
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3967.9 lumens
Efficiency: N/A
Efficacy: 148.6 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): 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	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°	26628	26628	26628
5°	26593	26757	27084
10°	26875	27563	27976
15°	26865	27005	27231
20°	26431	26835	27730
25°	26355	27105	28873
30°	26329	27708	29149
35°	26079	28298	27139
40°	25478	27248	23882
45°	24108	23916	18886
50°	21916	19552	14654
55°	19260	16090	11406
60°	16666	12865	9390
65°	14388	10663	8222
70°	12935	9446	7303
75°	11853	8178	6712
80°	10321	6564	6564
85°	7466	5910	3112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26103 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	4.0
10°-20°	461.2	11.6
20°-30°	713.2	18.0
30°-40°	858.8	21.6
40°-50°	771.0	19.4
50°-60°	514.7	13.0
60°-70°	299.0	7.5
70°-80°	153.7	3.9
80°-90°	36.9	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°	1333.7	33.6
0°-40°	2192.5	55.3
0°-60°	3478.2	87.7
0°-90°	3967.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3967.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1641	1669	1651	1654	1671	157
15°	1607	1674	1616	1621	1629	452
25°	1479	1540	1522	1577	1621	683
35°	1323	1335	1436	1409	1377	826
45°	1056	1143	1047	884	827	809
55°	684	711	572	442	405	615
65°	377	385	279	227	215	380
75°	190	185	131	111	108	201
85°	40	32	32	22	17	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1649.2	1649.2	1649.2	1649.2	1649.2
2.5°	1640.8	1666.1	1642.5	1644.2	1649.2
5°	1640.8	1669.4	1650.9	1654.3	1671.1
7.5°	1640.8	1679.5	1669.4	1681.2	1703.0
10°	1639.2	1687.9	1681.2	1682.9	1706.4
12.5°	1629.1	1687.9	1656.0	1652.6	1662.7
15°	1607.2	1674.5	1615.6	1620.7	1629.1
17.5°	1571.9	1642.5	1583.7	1600.5	1613.9
20°	1538.3	1607.2	1561.8	1585.4	1613.9
22.5°	1508.0	1577.0	1541.6	1577.0	1619.0
25°	1479.4	1540.0	1521.5	1577.0	1620.7
27.5°	1450.9	1489.5	1501.3	1578.6	1613.9
30°	1412.2	1435.7	1486.2	1551.7	1563.5
32.5°	1370.2	1381.9	1466.0	1492.9	1471.0
35°	1323.1	1334.9	1435.7	1408.8	1376.9
37.5°	1269.3	1289.5	1375.2	1306.3	1271.0
40°	1208.8	1249.1	1292.8	1175.1	1133.1
42.5°	1134.8	1205.4	1183.6	1025.5	971.7
45°	1055.8	1143.2	1047.4	884.3	827.1
47.5°	963.3	1057.5	904.5	756.5	704.4
50°	872.5	944.8	778.4	642.2	583.4
52.5°	780.1	827.1	670.8	534.6	482.5
55°	684.2	711.1	571.6	442.2	405.2
57.5°	595.1	613.6	484.2	368.2	339.6
60°	516.1	527.9	398.4	312.7	290.8
62.5°	443.8	452.2	329.5	265.6	250.5
65°	376.6	385.0	279.1	227.0	215.2
67.5°	321.1	326.1	237.0	195.0	183.2
70°	274.0	275.7	200.1	163.1	154.7
72.5°	232.0	228.6	164.8	136.2	131.1
75°	190.0	184.9	131.1	111.0	107.6
77.5°	149.6	144.6	97.5	89.1	89.1
80°	111.0	104.2	70.6	70.6	70.6
82.5°	75.7	65.6	50.4	50.4	48.8
85°	40.3	31.9	31.9	21.9	16.8
87.5°	13.4	13.4	5.0	5.0	5.0
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	22.11	23.60	22.47	23.92	24.23	18.84	20.33	19.20	20.65	20.96
	3H	23.39	24.73	23.77	25.05	25.42	19.95	21.29	20.33	21.62	21.98
	4H	23.87	25.12	24.27	25.47	25.85	20.38	21.63	20.78	21.98	22.36
	6H	24.22	25.37	24.63	25.74	26.13	20.74	21.89	21.15	22.26	22.65
	8H	24.31	25.41	24.74	25.80	26.20	20.84	21.94	21.27	22.33	22.73
	12H	24.36	25.41	24.79	25.79	26.22	20.87	21.92	21.30	22.30	22.73
4H	2H	22.26	23.51	22.66	23.86	24.24	19.48	20.73	19.88	21.08	21.46
	3H	23.79	24.82	24.20	25.22	25.62	20.80	21.84	21.21	22.24	22.64
	4H	24.41	25.33	24.84	25.75	26.19	21.33	22.26	21.77	22.68	23.12
	6H	24.89	25.70	25.35	26.14	26.60	21.80	22.60	22.26	23.05	23.51
	8H	25.03	25.79	25.50	26.23	26.70	21.93	22.68	22.40	23.13	23.60
	12H	25.11	25.78	25.60	26.26	26.74	21.98	22.65	22.46	23.13	23.60
8H	4H	24.48	25.23	24.94	25.67	26.14	21.68	22.43	22.14	22.88	23.34
	6H	25.04	25.66	25.54	26.16	26.63	22.23	22.86	22.73	23.35	23.83
	8H	25.24	25.80	25.76	26.31	26.80	22.42	22.98	22.93	23.49	23.98
	12H	25.37	25.86	25.88	26.36	26.92	22.51	23.00	23.02	23.50	24.06
12H	4H	24.46	25.13	24.94	25.61	26.08	21.72	22.39	22.21	22.87	23.35
	6H	25.03	25.59	25.54	26.10	26.59	22.29	22.85	22.81	23.36	23.85
	8H	25.27	25.76	25.78	26.25	26.82	22.53	23.02	23.04	23.51	24.08