

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: P855164

Luminaire Tested: SQ2-PH1-075U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855164
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-075U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

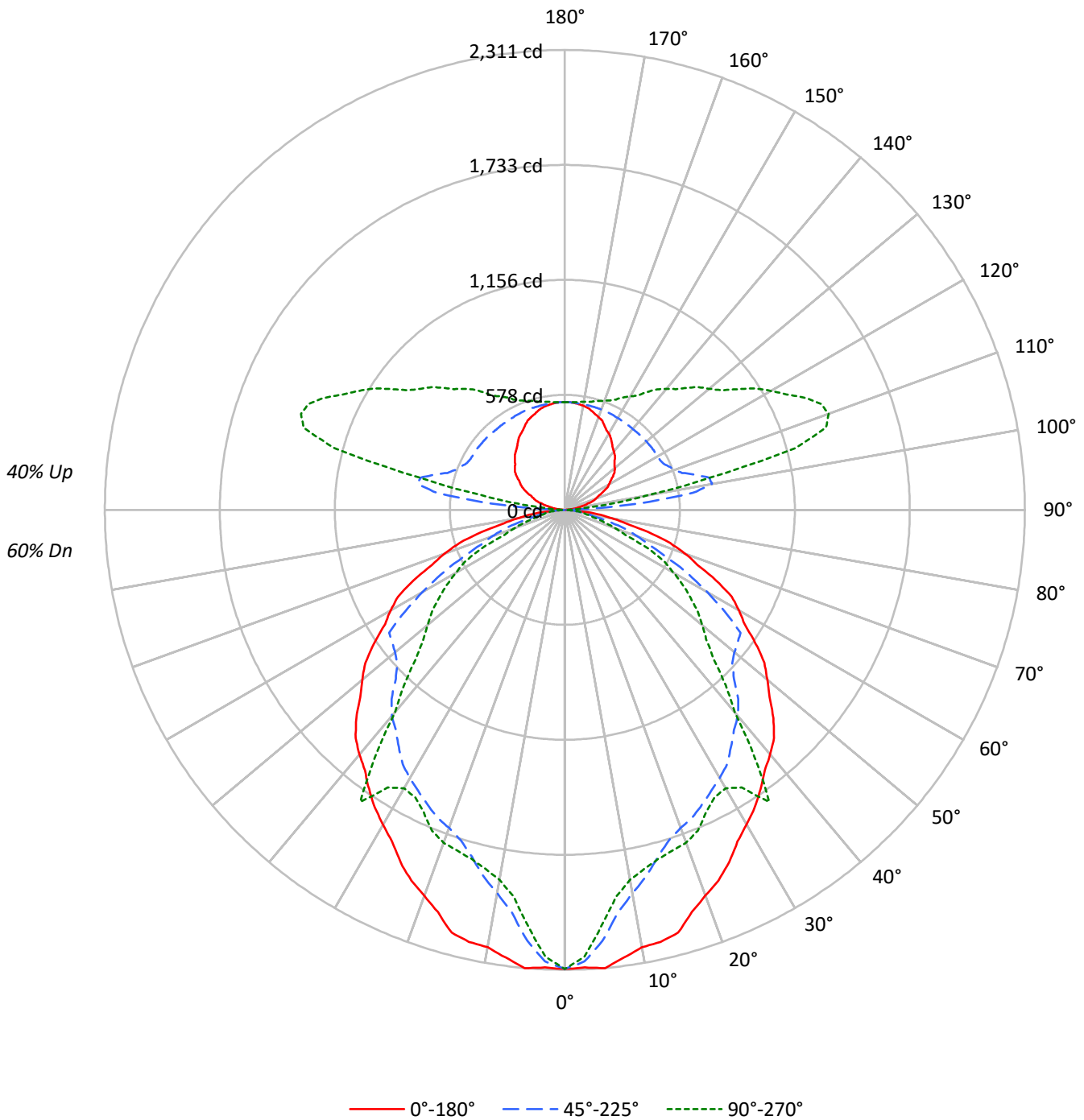
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8456.4 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 60.9
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
RCR																				
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	60		
1	100	96	92	89	94	90	87	84	79	76	74	68	66	65	58	57	56	51		
2	92	84	78	73	85	79	74	69	69	65	61	60	57	54	52	49	47	43		
3	84	74	67	61	78	70	63	58	61	56	52	53	49	46	46	43	41	37		
4	77	66	58	52	71	62	55	49	54	49	44	47	43	40	41	38	35	32		
5	70	59	50	44	66	55	48	42	49	43	38	43	38	34	37	33	31	28		
6	65	53	44	39	60	50	42	37	44	38	34	39	34	30	34	30	27	24		
7	60	48	40	34	56	45	38	32	40	34	30	35	30	27	31	27	24	22		
8	56	43	35	30	52	41	34	29	36	31	26	32	27	24	28	24	22	19		
9	52	40	32	27	49	37	31	26	33	28	24	30	25	22	26	22	19	17		
10	49	36	29	24	46	34	28	23	31	25	21	27	23	20	24	20	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37247	37247	37247
5°	37460	35219	34046
10°	36597	32064	30947
15°	36762	30158	30342
20°	35450	29228	30586
25°	34802	29092	29874
30°	34047	29015	30119
35°	33788	28683	35303
40°	33818	28498	27988
45°	33830	27414	24106
50°	33355	27954	22604
55°	32932	30337	21686
60°	32605	26579	20344
65°	32030	21551	17692
70°	30260	18340	12642
75°	26974	13830	9588
80°	22046	8973	8973
85°	13820	8133	6095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 33830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	2.4
10°-20°	533.9	6.3
20°-30°	782.9	9.3
30°-40°	948.1	11.2
40°-50°	932.4	11.0
50°-60°	811.6	9.6
60°-70°	564.3	6.7
70°-80°	267.5	3.2
80°-90°	59.5	0.7
90°-100°	204.8	2.4
100°-110°	679.0	8.0
110°-120°	673.9	8.0
120°-130°	548.9	6.5
130°-140°	446.1	5.3
140°-150°	346.5	4.1
150°-160°	249.6	3.0
160°-170°	152.9	1.8
170°-180°	51.6	0.6
0°-30°	1519.8	18.0
0°-40°	2467.9	29.2
0°-60°	4211.9	49.8
0°-90°	5103.1	60.3
90°-120°	1557.7	18.4
90°-150°	2899.1	34.3
90°-180°	3353.0	39.7
0°-180°	8456.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2307	2307	2307	2307	2307	
5°	2311	2309	2173	2105	2101	217
15°	2199	1959	1804	1792	1815	613
25°	1954	1662	1633	1683	1677	898
35°	1714	1386	1455	1581	1791	1074
45°	1482	1097	1201	1242	1056	1139
55°	1170	854	1078	777	770	1045
65°	838	587	564	463	463	824
75°	432	299	222	158	154	458
85°	75	49	44	35	33	100
90°	0	1	3	4	4	3
95°	29	86	371	132	89	33
105°	119	169	680	1282	1199	125
115°	212	254	547	1139	1332	210
125°	296	329	537	895	1055	263
135°	354	390	533	768	867	274
145°	412	442	532	661	723	258
155°	470	486	535	590	612	216
165°	516	521	537	558	564	145
175°	539	539	540	544	543	51
180°	542	542	542	542	542	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2306.9	2306.9	2306.9	2306.9	2306.9
2.5°	2301.6	2325.7	2271.7	2250.7	2247.1
5°	2311.3	2309.2	2173.0	2104.9	2100.6
7.5°	2269.1	2202.6	2039.9	1964.8	1961.4
10°	2232.2	2131.4	1955.7	1887.6	1887.6
12.5°	2223.5	2064.3	1887.2	1836.9	1847.2
15°	2199.3	1958.9	1804.2	1791.7	1815.2
17.5°	2119.4	1860.6	1739.7	1768.5	1796.0
20°	2063.2	1807.8	1701.1	1754.3	1780.1
22.5°	2015.8	1757.0	1672.9	1731.2	1745.0
25°	1953.5	1661.6	1633.0	1683.3	1676.9
27.5°	1878.9	1574.1	1593.0	1623.9	1627.8
30°	1826.2	1521.4	1556.3	1587.6	1615.5
32.5°	1775.2	1460.2	1515.9	1590.1	1654.2
35°	1714.2	1385.8	1455.2	1580.7	1791.1
37.5°	1650.2	1298.1	1394.2	1499.8	1566.8
40°	1604.5	1235.3	1352.1	1482.5	1327.9
42.5°	1555.4	1186.2	1288.9	1457.2	1196.3
45°	1481.6	1097.4	1200.6	1242.5	1055.7
47.5°	1394.7	1028.6	1140.9	1036.2	963.2
50°	1327.9	982.4	1112.9	947.1	899.9
52.5°	1262.9	934.6	1093.5	873.8	842.0
55°	1169.9	854.4	1077.7	776.9	770.4
57.5°	1071.1	772.8	953.1	692.6	703.7
60°	1009.7	720.0	823.1	642.8	630.0
62.5°	944.7	668.7	702.0	579.6	566.7
65°	838.4	587.3	564.1	463.1	463.1
67.5°	721.7	502.8	457.0	379.0	327.5
70°	641.0	447.8	388.5	302.2	267.8
72.5°	554.9	389.2	318.2	247.6	208.1
75°	432.4	299.3	221.7	158.0	153.7
77.5°	312.6	215.6	149.3	117.2	117.7
80°	237.1	164.1	96.5	94.4	96.5
82.5°	166.8	112.7	72.0	75.0	75.5
85°	74.6	48.9	43.9	35.1	32.9
87.5°	15.8	14.3	9.5	9.7	9.7
90°	0.0	1.1	3.4	4.5	4.5
92.5°	8.9	34.6	102.1	33.0	27.8
95°	29.2	86.1	371.2	132.4	88.6
97.5°	53.6	113.3	647.9	377.9	238.8
100°	70.6	127.7	750.2	644.3	427.2
102.5°	89.5	144.7	743.8	984.7	743.8
105°	118.8	169.3	679.5	1281.9	1198.7
107.5°	148.9	193.9	617.9	1312.3	1375.7
110°	165.9	210.9	586.4	1282.3	1410.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.9	227.9	567.6	1229.3	1392.6
115°	212.0	253.6	547.2	1139.1	1332.1
117.5°	239.7	276.8	539.8	1053.0	1255.4
120°	256.8	293.0	537.1	999.0	1195.3
122.5°	272.1	307.4	537.1	954.8	1136.1
125°	296.0	328.9	537.1	895.0	1055.2
127.5°	315.7	348.0	535.7	849.9	986.7
130°	327.4	361.5	534.8	823.6	946.4
132.5°	338.1	373.0	533.9	801.8	912.2
135°	354.3	390.5	532.6	768.1	866.7
137.5°	371.9	406.7	531.3	735.6	822.6
140°	383.5	417.5	530.4	713.9	793.9
142.5°	394.3	427.3	531.3	692.1	763.4
145°	411.5	442.3	531.5	660.8	723.2
147.5°	430.1	455.8	531.8	634.2	680.6
150°	441.8	464.8	532.6	618.7	658.2
152.5°	452.6	474.7	533.5	606.0	637.6
155°	469.9	486.3	534.8	590.3	612.2
157.5°	486.6	499.4	536.2	579.2	594.7
160°	495.6	506.5	537.1	571.0	583.0
162.5°	504.6	512.9	537.1	565.6	575.0
165°	515.8	521.2	537.1	558.5	564.0
167.5°	526.1	528.9	538.2	552.1	555.1
170°	531.5	532.6	538.2	549.4	550.6
172.5°	535.1	536.2	539.1	546.7	546.9
175°	539.4	539.4	540.5	543.8	542.7
177.5°	541.6	541.6	540.7	542.4	540.7
180°	541.6	541.6	541.6	541.6	541.6

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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	20.80	21.76	21.67	22.64	23.76	19.48	20.43	20.34	21.31	22.43
	3H	22.83	23.69	23.71	24.58	25.73	20.52	21.37	21.39	22.26	23.41
	4H	23.57	24.38	24.46	25.28	26.43	20.74	21.54	21.63	22.44	23.59
	6H	24.06	24.80	24.97	25.71	26.88	20.88	21.63	21.79	22.53	23.70
	8H	24.19	24.89	25.10	25.82	26.98	20.92	21.63	21.83	22.55	23.71
	12H	24.24	24.91	25.15	25.83	27.02	20.92	21.59	21.84	22.51	23.70
4H	2H	21.19	22.00	22.09	22.90	24.05	20.13	20.93	21.03	21.84	22.99
	3H	23.30	23.97	24.21	24.91	26.07	21.32	21.99	22.23	22.92	24.09
	4H	24.12	24.73	25.04	25.66	26.85	21.60	22.21	22.52	23.13	24.33
	6H	24.71	25.24	25.65	26.19	27.39	21.81	22.34	22.74	23.29	24.48
	8H	24.89	25.38	25.82	26.32	27.53	21.87	22.36	22.81	23.30	24.51
	12H	24.96	25.40	25.91	26.36	27.58	21.88	22.32	22.84	23.29	24.50
8H	4H	24.15	24.64	25.09	25.58	26.79	21.82	22.31	22.76	23.26	24.46
	6H	24.80	25.21	25.77	26.20	27.40	22.10	22.50	23.06	23.49	24.69
	8H	25.03	25.39	26.00	26.37	27.59	22.20	22.56	23.17	23.53	24.76
	12H	25.15	25.46	26.12	26.43	27.71	22.25	22.56	23.22	23.53	24.81
12H	4H	24.10	24.55	25.06	25.51	26.72	21.82	22.26	22.78	23.23	24.44
	6H	24.78	25.14	25.75	26.11	27.34	22.13	22.48	23.10	23.46	24.69
	8H	25.02	25.33	25.99	26.30	27.57	22.25	22.56	23.22	23.53	24.80