

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: P854010

Luminaire Tested: SQ2-PH1-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854010
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

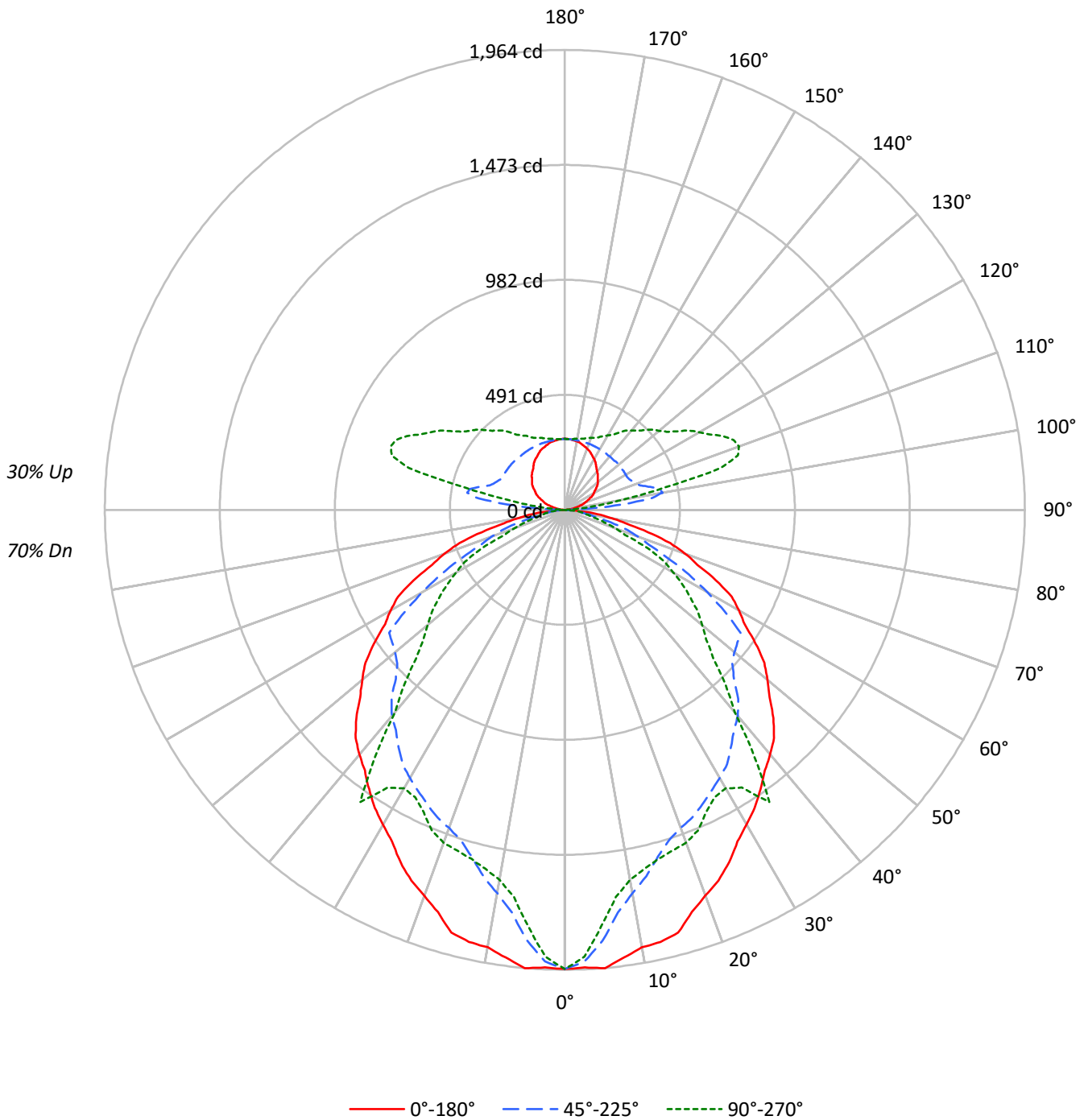
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6219.0 lumens
Efficiency: N/A
Efficacy: 118.7 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): 52.4
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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70				
1	103	98	94	91	97	93	90	87	83	81	78	74	72	71	66	65	63	59				
2	94	86	80	75	88	82	76	71	73	69	65	66	62	59	59	56	54	50				
3	85	76	68	62	81	72	65	60	65	59	55	58	54	50	52	49	46	43				
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	47	43	40	37				
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	32				
6	66	54	46	40	63	52	44	38	47	40	36	42	37	33	38	34	31	28				
7	62	49	41	35	58	47	39	34	42	36	32	39	33	29	35	31	27	25				
8	57	45	37	31	54	43	35	30	39	33	28	35	30	26	32	28	24	22				
9	53	41	33	28	50	39	32	27	36	30	25	33	27	24	30	25	22	20				
10	50	38	30	25	47	36	29	24	33	27	23	30	25	22	27	23	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31656	31656	31656
5°	31836	29932	28935
10°	31104	27250	26302
15°	31244	25631	25787
20°	30129	24840	25995
25°	29578	24725	25390
30°	28937	24658	25598
35°	28716	24378	30003
40°	28743	24219	23787
45°	28752	23299	20489
50°	28349	23757	19211
55°	27989	25782	18432
60°	27709	22591	17289
65°	27224	18315	15037
70°	25714	15588	10744
75°	22926	11753	8147
80°	18736	7634	7634
85°	11745	6910	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 28752 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	2.8
10°-20°	453.8	7.3
20°-30°	665.4	10.7
30°-40°	805.8	13.0
40°-50°	792.4	12.7
50°-60°	689.8	11.1
60°-70°	479.6	7.7
70°-80°	227.4	3.7
80°-90°	50.5	0.8
90°-100°	120.7	1.9
100°-110°	382.8	6.2
110°-120°	375.4	6.0
120°-130°	305.5	4.9
130°-140°	249.1	4.0
140°-150°	194.2	3.1
150°-160°	139.9	2.2
160°-170°	85.5	1.4
170°-180°	28.9	0.5
0°-30°	1291.7	20.8
0°-40°	2097.5	33.7
0°-60°	3579.6	57.6
0°-90°	4337.1	69.7
90°-120°	879.0	14.1
90°-150°	1627.7	26.2
90°-180°	1882.0	30.3
0°-180°	6219.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1964	1962	1847	1789	1785	185
15°	1869	1665	1533	1523	1543	521
25°	1660	1412	1388	1431	1425	764
35°	1457	1178	1237	1344	1522	913
45°	1259	933	1020	1056	897	968
55°	994	726	916	660	655	888
65°	713	499	479	394	394	700
75°	368	254	188	134	131	389
85°	63	42	37	30	28	85
90°	0	1	3	3	3	3
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1960.6	1960.6	1960.6	1960.6	1960.6
2.5°	1956.1	1976.6	1930.8	1912.8	1909.9
5°	1964.3	1962.5	1846.8	1788.9	1785.3
7.5°	1928.5	1872.0	1733.8	1669.9	1667.0
10°	1897.2	1811.5	1662.1	1604.3	1604.3
12.5°	1889.7	1754.4	1603.9	1561.2	1570.0
15°	1869.2	1664.9	1533.4	1522.7	1542.7
17.5°	1801.3	1581.3	1478.6	1503.0	1526.3
20°	1753.5	1536.5	1445.7	1491.0	1512.9
22.5°	1713.2	1493.3	1421.9	1471.4	1483.0
25°	1660.3	1412.2	1387.9	1430.7	1425.2
27.5°	1596.8	1337.8	1354.0	1380.1	1383.4
30°	1552.1	1293.1	1322.6	1349.3	1373.0
32.5°	1508.8	1241.0	1288.3	1351.5	1405.8
35°	1456.9	1177.9	1236.8	1343.5	1522.2
37.5°	1402.5	1103.3	1184.9	1274.7	1331.6
40°	1363.7	1049.9	1149.1	1259.9	1128.6
42.5°	1321.9	1008.1	1095.4	1238.5	1016.7
45°	1259.2	932.7	1020.4	1056.0	897.3
47.5°	1185.3	874.1	969.7	880.6	818.6
50°	1128.6	834.9	945.8	805.0	764.8
52.5°	1073.4	794.3	929.4	742.6	715.6
55°	994.3	726.2	915.9	660.3	654.8
57.5°	910.3	656.8	810.0	588.6	598.1
60°	858.1	611.9	699.6	546.3	535.4
62.5°	802.9	568.3	596.6	492.6	481.7
65°	712.6	499.2	479.4	393.6	393.6
67.5°	613.4	427.3	388.4	322.1	278.3
70°	544.7	380.6	330.2	256.8	227.6
72.5°	471.6	330.8	270.5	210.4	176.8
75°	367.5	254.4	188.4	134.2	130.6
77.5°	265.6	183.2	126.9	99.6	100.0
80°	201.5	139.5	82.1	80.3	82.1
82.5°	141.8	95.8	61.2	63.8	64.2
85°	63.4	41.5	37.3	29.8	28.0
87.5°	13.4	12.2	8.0	8.0	8.0
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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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	20.99	22.05	21.75	22.84	23.79	19.66	20.72	20.43	21.51	22.47
	3H	23.03	23.98	23.81	24.78	25.77	20.71	21.66	21.49	22.46	23.45
	4H	23.77	24.66	24.57	25.47	26.47	20.93	21.83	21.73	22.64	23.64
	6H	24.26	25.09	25.07	25.90	26.92	21.09	21.91	21.90	22.73	23.74
	8H	24.39	25.18	25.21	26.01	27.03	21.12	21.91	21.95	22.75	23.76
	12H	24.44	25.19	25.27	26.02	27.06	21.13	21.88	21.96	22.71	23.75
4H	2H	21.39	22.28	22.19	23.09	24.09	20.32	21.22	21.13	22.03	23.03
	3H	23.51	24.26	24.33	25.10	26.11	21.52	22.27	22.34	23.11	24.13
	4H	24.33	25.01	25.16	25.85	26.90	21.81	22.48	22.64	23.32	24.37
	6H	24.93	25.51	25.78	26.38	27.43	22.03	22.61	22.87	23.48	24.53
	8H	25.10	25.65	25.95	26.51	27.57	22.09	22.63	22.94	23.49	24.56
	12H	25.18	25.67	26.05	26.55	27.62	22.10	22.59	22.97	23.48	24.54
8H	4H	24.37	24.91	25.22	25.77	26.84	22.04	22.58	22.89	23.44	24.51
	6H	25.03	25.48	25.91	26.38	27.44	22.32	22.77	23.20	23.67	24.73
	8H	25.25	25.65	26.14	26.55	27.63	22.42	22.82	23.31	23.72	24.80
	12H	25.38	25.73	26.27	26.62	27.75	22.48	22.83	23.37	23.72	24.85
12H	4H	24.33	24.82	25.20	25.70	26.77	22.04	22.54	22.91	23.42	24.48
	6H	25.00	25.40	25.89	26.30	27.38	22.35	22.75	23.24	23.65	24.73
	8H	25.24	25.60	26.14	26.48	27.62	22.48	22.83	23.37	23.72	24.85