

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: P854011

Luminaire Tested: SQ2-PH1-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854011
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-935-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

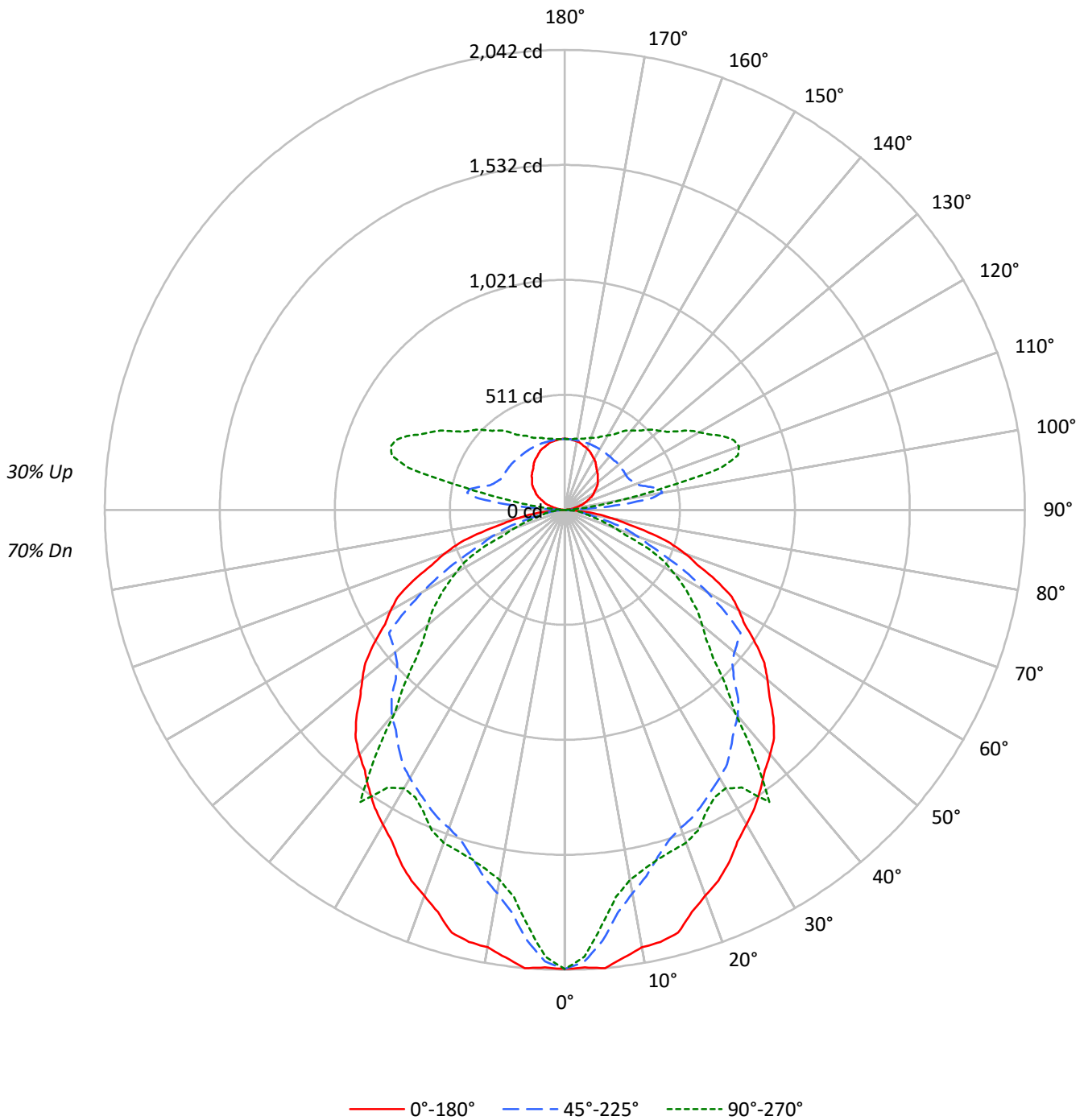
Lumens per Lamp: N/A
Luminaire Lumens: 6466.0 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

TEST NUMBER: P854011

CATALOG NUMBER: SQ2-PH1-050U-100D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854011

CATALOG NUMBER: SQ2-PH1-050U-100D-935-UNV-STD-W-4

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32913	32913	32913
5°	33102	31122	30084
10°	32339	28334	27347
15°	32485	26649	26812
20°	31326	25828	27027
25°	30752	25707	26398
30°	30085	25639	26614
35°	29857	25346	31196
40°	29883	25183	24732
45°	29894	24224	21302
50°	29474	24702	19974
55°	29101	26807	19164
60°	28811	23486	17977
65°	28306	19045	15633
70°	26738	16206	11169
75°	23836	12221	8472
80°	19479	7931	7931
85°	12208	7188	5391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29894 cd/sqm



TEST NUMBER: P854011

CATALOG NUMBER: SQ2-PH1-050U-100D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.4	2.8
10°-20°	471.8	7.3
20°-30°	691.8	10.7
30°-40°	837.8	13.0
40°-50°	823.9	12.7
50°-60°	717.2	11.1
60°-70°	498.6	7.7
70°-80°	236.4	3.7
80°-90°	52.5	0.8
90°-100°	125.5	1.9
100°-110°	398.1	6.2
110°-120°	390.3	6.0
120°-130°	317.6	4.9
130°-140°	259.0	4.0
140°-150°	201.9	3.1
150°-160°	145.5	2.2
160°-170°	88.9	1.4
170°-180°	30.0	0.5
0°-30°	1343.0	20.8
0°-40°	2180.8	33.7
0°-60°	3721.8	57.6
0°-90°	4509.3	69.7
90°-120°	913.9	14.1
90°-150°	1692.4	26.2
90°-180°	1957.0	30.3
0°-180°	6466.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2042	2040	1920	1860	1856	192
15°	1943	1731	1594	1583	1604	542
25°	1726	1468	1443	1488	1482	794
35°	1515	1225	1286	1397	1583	949
45°	1309	970	1061	1098	933	1006
55°	1034	755	952	686	681	924
65°	741	519	498	409	409	728
75°	382	264	196	140	136	405
85°	66	43	39	31	29	88
90°	0	1	3	3	3	3
95°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	



TEST NUMBER: P854011

CATALOG NUMBER: SQ2-PH1-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2033.8	2055.1	2007.4	1988.8	1985.7
5°	2042.4	2040.5	1920.2	1860.0	1856.2
7.5°	2005.1	1946.3	1802.6	1736.2	1733.2
10°	1972.5	1883.4	1728.2	1668.0	1668.0
12.5°	1964.8	1824.1	1667.6	1623.2	1632.3
15°	1943.4	1731.0	1594.3	1583.2	1604.0
17.5°	1872.8	1644.1	1537.3	1562.7	1587.0
20°	1823.2	1597.5	1503.2	1550.2	1573.0
22.5°	1781.3	1552.6	1478.3	1529.8	1542.0
25°	1726.2	1468.3	1443.0	1487.5	1481.8
27.5°	1660.3	1391.0	1407.7	1435.0	1438.4
30°	1613.7	1344.4	1375.2	1402.9	1427.5
32.5°	1568.7	1290.3	1339.5	1405.1	1461.7
35°	1514.8	1224.6	1285.9	1396.8	1582.7
37.5°	1458.2	1147.1	1232.0	1325.3	1384.5
40°	1417.8	1091.6	1194.8	1310.0	1173.4
42.5°	1374.4	1048.2	1138.9	1287.7	1057.1
45°	1309.2	969.7	1060.9	1097.9	932.9
47.5°	1232.4	908.9	1008.2	915.6	851.1
50°	1173.4	868.1	983.4	836.9	795.2
52.5°	1116.0	825.9	966.3	772.1	744.0
55°	1033.8	755.0	952.3	686.5	680.8
57.5°	946.5	682.9	842.2	612.0	621.8
60°	892.2	636.2	727.3	568.0	556.7
62.5°	834.8	590.9	620.3	512.2	500.8
65°	740.9	519.0	498.5	409.2	409.2
67.5°	637.7	444.3	403.8	334.9	289.4
70°	566.4	395.7	343.3	267.0	236.6
72.5°	490.3	343.9	281.2	218.8	183.9
75°	382.1	264.5	195.9	139.6	135.8
77.5°	276.2	190.5	131.9	103.6	104.0
80°	209.5	145.0	85.3	83.4	85.3
82.5°	147.4	99.6	63.6	66.3	66.7
85°	65.9	43.2	38.8	31.0	29.1
87.5°	14.0	12.6	8.4	8.4	8.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



TEST NUMBER: P854011

CATALOG NUMBER: SQ2-PH1-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1



TEST NUMBER: P854011

CATALOG NUMBER: SQ2-PH1-050U-100D-935-UNV-STD-W-4

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	21.12	22.18	21.89	22.97	23.93	19.79	20.85	20.56	21.64	22.60
	3H	23.16	24.11	23.94	24.91	25.90	20.84	21.79	21.63	22.59	23.58
	4H	23.90	24.80	24.70	25.61	26.61	21.07	21.96	21.87	22.77	23.77
	6H	24.40	25.22	25.21	26.04	27.05	21.22	22.05	22.03	22.86	23.88
	8H	24.53	25.31	25.35	26.15	27.16	21.26	22.04	22.08	22.88	23.90
	12H	24.58	25.33	25.41	26.16	27.20	21.26	22.01	22.09	22.84	23.88
4H	2H	21.52	22.42	22.32	23.22	24.23	20.46	21.36	21.26	22.16	23.16
	3H	23.65	24.39	24.46	25.23	26.25	21.66	22.40	22.47	23.25	24.26
	4H	24.47	25.15	25.30	25.99	27.03	21.94	22.62	22.77	23.46	24.50
	6H	25.07	25.65	25.91	26.51	27.56	22.16	22.75	23.01	23.61	24.66
	8H	25.24	25.79	26.09	26.65	27.71	22.22	22.77	23.07	23.63	24.69
	12H	25.32	25.81	26.19	26.69	27.76	22.24	22.73	23.11	23.61	24.68
8H	4H	24.50	25.05	25.35	25.91	26.97	22.17	22.72	23.02	23.58	24.64
	6H	25.16	25.61	26.04	26.52	27.58	22.45	22.90	23.33	23.81	24.87
	8H	25.39	25.79	26.28	26.69	27.77	22.56	22.96	23.45	23.85	24.93
	12H	25.51	25.86	26.40	26.75	27.89	22.61	22.96	23.50	23.85	24.98
12H	4H	24.46	24.95	25.33	25.84	26.90	22.18	22.67	23.05	23.55	24.62
	6H	25.14	25.54	26.03	26.43	27.51	22.49	22.89	23.37	23.78	24.86
	8H	25.38	25.73	26.27	26.62	27.75	22.61	22.96	23.50	23.85	24.98