

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: P854047

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854047
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

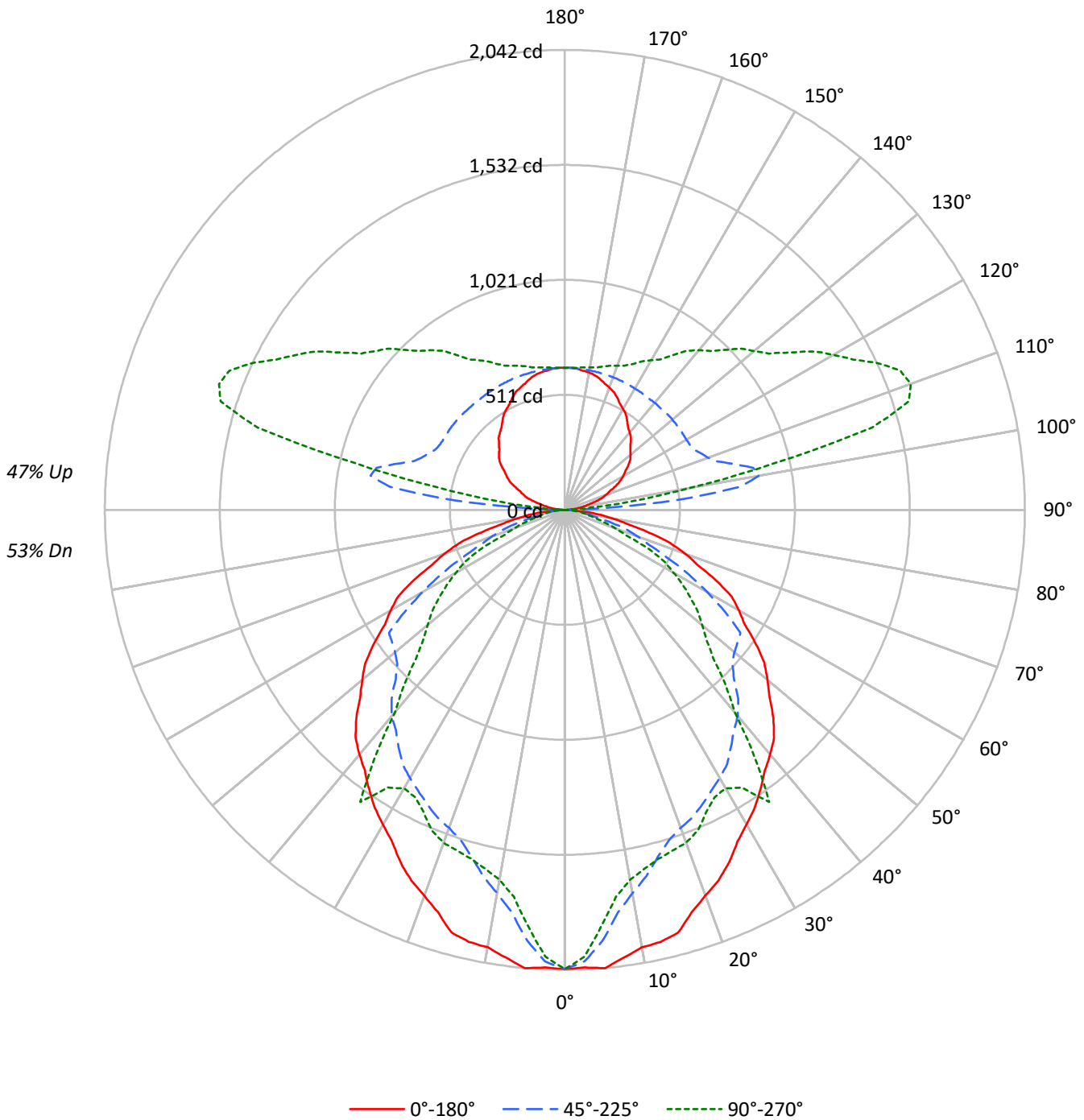
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8437.6 lumens
Efficiency: N/A
Efficacy: 120.2 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: General Diffuse

Input Watts (W): 70.2
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: P854047
CATALOG NUMBER: SQ2-PH1-100U-100D-935-UNV-STD-W-4

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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	99	95	91	87	91	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	38
3	82	73	66	60	76	68	61	56	58	53	49	50	46	43	41	39	37	33
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	32	28
5	69	58	49	43	64	54	47	41	46	41	36	40	35	32	33	30	28	24
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	55	44	37	31	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	28	23	20	24	20	18	15
10	48	36	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14

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: P854047

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.4	2.1
10°-20°	471.8	5.6
20°-30°	691.8	8.2
30°-40°	837.8	9.9
40°-50°	823.9	9.8
50°-60°	717.2	8.5
60°-70°	498.6	5.9
70°-80°	236.4	2.8
80°-90°	53.2	0.6
90°-100°	263.6	3.1
100°-110°	797.1	9.4
110°-120°	778.2	9.2
120°-130°	635.9	7.5
130°-140°	519.0	6.2
140°-150°	404.0	4.8
150°-160°	291.3	3.5
160°-170°	178.3	2.1
170°-180°	60.2	0.7
0°-30°	1343.0	15.9
0°-40°	2180.8	25.8
0°-60°	3721.8	44.1
0°-90°	4510.0	53.5
90°-120°	1838.8	21.8
90°-150°	3397.8	40.3
90°-180°	3928.0	46.6
0°-180°	8437.6	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	2	12	7	6	3
95°	33	103	497	184	116	39
105°	139	195	783	1486	1413	146
115°	247	294	633	1310	1539	244
125°	345	382	624	1034	1218	306
135°	413	457	620	892	1004	320
145°	482	518	620	767	839	302
155°	550	568	624	688	714	253
165°	601	608	627	651	659	169
175°	629	629	630	635	633	60
180°	631	631	631	631	631	



TEST NUMBER: P854047

CATALOG NUMBER: SQ2-PH1-100U-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	12.8	10.1	9.1	8.9
90°	0.0	1.9	11.9	6.9	5.9
92.5°	11.1	44.8	160.9	53.4	38.4
95°	32.7	103.4	497.3	183.7	115.9
97.5°	63.2	131.6	783.8	518.7	315.8
100°	82.2	149.1	875.8	846.7	568.7
102.5°	103.6	168.1	856.8	1187.5	946.7
105°	138.7	194.9	782.7	1486.4	1412.7
107.5°	172.0	225.6	711.3	1515.9	1601.2
110°	194.2	245.5	675.7	1478.7	1633.7



TEST NUMBER: P854047

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	215.6	265.4	654.3	1416.2	1612.3
115°	246.7	294.1	633.1	1309.9	1538.6
117.5°	277.6	322.5	625.5	1210.4	1444.4
120°	298.2	340.8	623.1	1152.3	1377.1
122.5°	317.2	357.5	623.1	1101.2	1308.9
125°	344.8	382.5	624.1	1034.5	1217.6
127.5°	367.2	406.3	623.1	984.1	1140.3
130°	381.4	422.1	623.1	955.3	1096.7
132.5°	394.1	435.6	622.4	928.9	1059.5
135°	413.1	456.7	620.2	892.2	1003.6
137.5°	434.3	475.8	620.2	853.0	956.2
140°	447.8	488.5	620.2	827.5	925.3
142.5°	461.3	500.4	619.4	804.2	889.6
145°	482.5	518.3	620.2	767.4	839.1
147.5°	503.7	534.1	621.4	737.1	792.2
150°	517.1	545.2	622.2	720.3	766.8
152.5°	529.8	554.8	622.9	705.8	743.8
155°	549.8	568.2	624.1	688.1	714.3
157.5°	567.3	582.2	625.3	675.1	693.3
160°	577.6	590.2	626.1	667.0	680.6
162.5°	587.9	597.4	626.9	659.9	671.1
165°	601.4	608.1	627.1	651.1	658.8
167.5°	612.8	616.3	628.3	644.2	647.5
170°	619.2	621.1	629.1	641.0	642.0
172.5°	623.1	624.3	629.1	637.8	638.0
175°	629.1	629.1	630.1	635.0	633.1
177.5°	631.9	631.1	630.3	632.6	631.1
180°	631.1	631.1	631.1	631.1	631.1



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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	19.78	20.67	20.71	21.61	22.83	18.45	19.34	19.38	20.28	21.51
	3H	21.81	22.60	22.75	23.55	24.80	19.49	20.28	20.43	21.24	22.48
	4H	22.54	23.29	23.50	24.25	25.50	19.70	20.45	20.66	21.41	22.67
	6H	23.03	23.72	23.99	24.68	25.95	19.85	20.54	20.82	21.50	22.77
	8H	23.15	23.81	24.13	24.79	26.05	19.88	20.54	20.86	21.52	22.79
	12H	23.20	23.82	24.18	24.80	26.09	19.88	20.51	20.86	21.48	22.77
4H	2H	20.16	20.91	21.12	21.87	23.12	19.10	19.85	20.06	20.81	22.06
	3H	22.27	22.89	23.24	23.88	25.15	20.28	20.90	21.25	21.89	23.16
	4H	23.08	23.65	24.06	24.64	25.93	20.56	21.13	21.54	22.11	23.40
	6H	23.67	24.16	24.66	25.17	26.46	20.77	21.26	21.76	22.26	23.55
	8H	23.84	24.30	24.83	25.30	26.60	20.82	21.28	21.82	22.28	23.59
	12H	23.91	24.32	24.92	25.34	26.65	20.83	21.24	21.84	22.26	23.57
8H	4H	23.10	23.56	24.10	24.56	25.87	20.77	21.23	21.77	22.23	23.54
	6H	23.76	24.13	24.78	25.17	26.48	21.05	21.42	22.07	22.47	23.77
	8H	23.98	24.31	25.01	25.34	26.66	21.15	21.48	22.18	22.51	23.83
	12H	24.10	24.39	25.13	25.41	26.78	21.20	21.49	22.23	22.51	23.88
12H	4H	23.06	23.47	24.07	24.48	25.79	20.77	21.18	21.79	22.20	23.51
	6H	23.73	24.06	24.76	25.09	26.41	21.08	21.41	22.10	22.44	23.76
	8H	23.96	24.26	24.99	25.28	26.65	21.19	21.49	22.23	22.51	23.88