

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: P854263

Luminaire Tested: SQ2-PW1-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854263
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-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

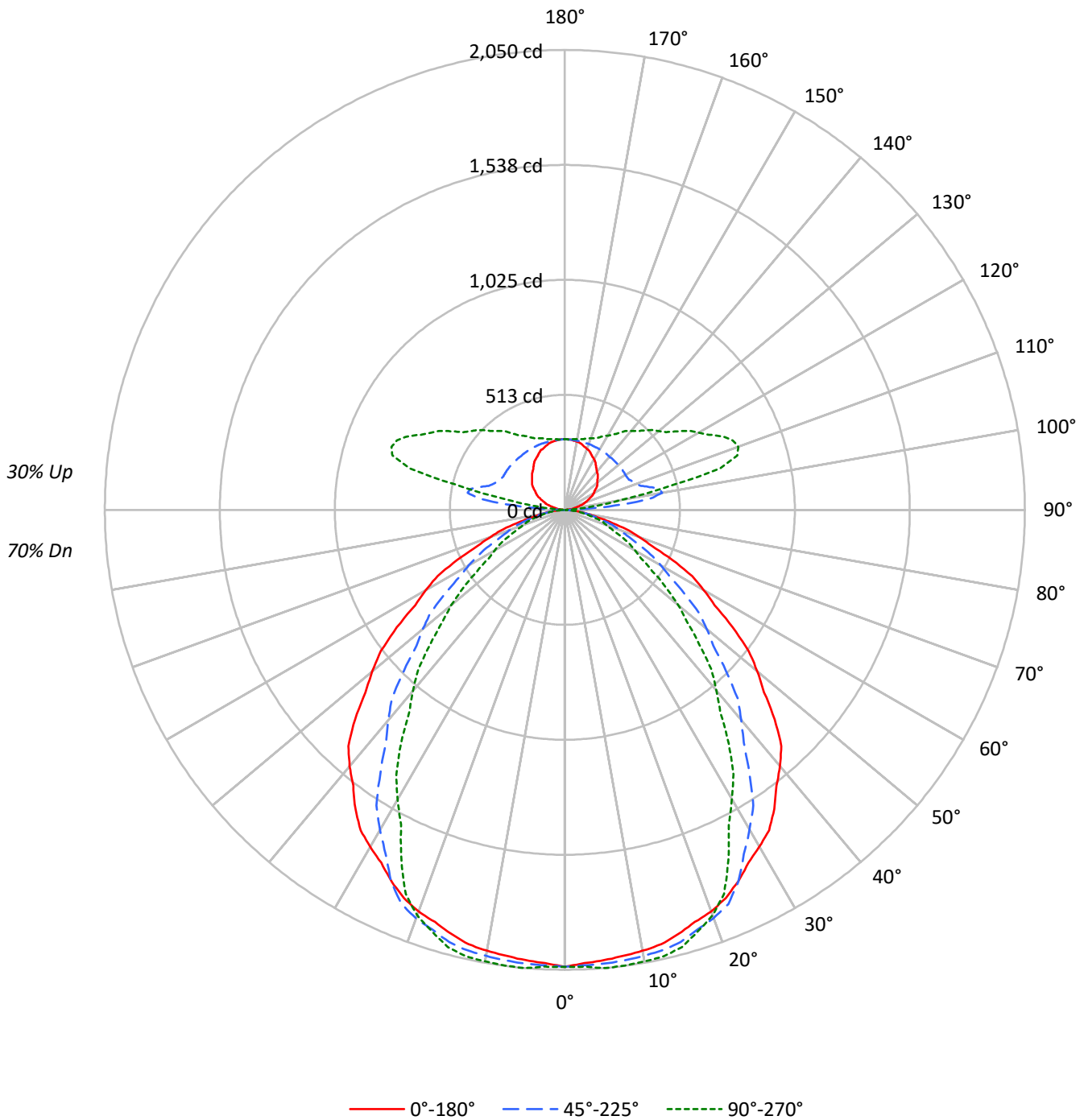
Lumens per Lamp: N/A
Luminaire Lumens: 6475.9 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P854263

CATALOG NUMBER: SQ2-PW1-050U-100D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854263

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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	74	74	74	70	
1	103	99	95	92	97	94	91	88	84	82	79	75	73	72	67	66	64	64	64	64	60	
2	95	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	55	55	55	55	52	
3	87	78	70	65	82	74	67	62	67	61	57	60	56	53	54	51	48	48	48	48	45	
4	80	69	61	55	75	66	59	53	60	54	50	54	49	46	49	45	42	42	42	42	39	
5	74	62	54	48	70	59	52	47	54	48	43	49	44	40	44	40	37	37	37	37	34	
6	68	56	48	42	64	54	46	41	49	43	38	44	40	36	40	36	33	33	33	33	31	
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	30	30	30	27	
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	27	27	27	25	
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	24	24	24	22	
10	52	39	32	27	49	38	31	27	35	29	25	32	27	24	29	25	22	22	22	22	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32881	32881	32881
5°	32661	32913	33227
10°	32721	33103	33516
15°	32712	33329	33718
20°	32727	33292	33060
25°	32550	32584	30718
30°	32328	30700	27772
35°	32075	28251	25080
40°	31436	25754	22156
45°	30204	23162	19354
50°	28110	20705	16566
55°	25714	18291	13430
60°	23050	15910	11586
65°	20157	13708	10300
70°	16480	12179	9338
75°	12826	10524	8590
80°	9558	9019	7578
85°	6465	6836	4316

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 30204 cd/sqm



TEST NUMBER: P854263

CATALOG NUMBER: SQ2-PW1-050U-100D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.9	3.0
10°-20°	561.9	8.7
20°-30°	826.9	12.8
30°-40°	904.0	14.0
40°-50°	811.0	12.5
50°-60°	605.0	9.3
60°-70°	382.3	5.9
70°-80°	189.4	2.9
80°-90°	44.7	0.7
90°-100°	125.5	1.9
100°-110°	398.1	6.1
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°	1582.7	24.4
0°-40°	2486.7	38.4
0°-60°	3902.7	60.3
0°-90°	4519.2	69.8
90°-120°	913.9	14.1
90°-150°	1692.4	26.1
90°-180°	1957.0	30.2
0°-180°	6475.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2036	2036	2036	2036	2036	
5°	2015	2048	2031	2033	2050	192
15°	1957	1995	1994	2008	2017	553
25°	1827	1867	1829	1753	1724	841
35°	1627	1610	1433	1308	1272	1015
45°	1323	1217	1014	887	848	1014
55°	914	826	650	509	477	816
65°	528	484	359	289	270	523
75°	206	221	169	142	138	226
85°	35	44	37	25	23	44
90°	0	1	3	3	3	2
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: P854263

CATALOG NUMBER: SQ2-PW1-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2036.5	2036.5	2036.5	2036.5	2036.5
2.5°	2022.6	2048.4	2031.9	2033.6	2038.1
5°	2015.2	2047.5	2030.7	2033.1	2050.1
7.5°	2005.1	2037.7	2025.3	2032.3	2049.0
10°	1995.8	2030.0	2019.1	2029.1	2044.3
12.5°	1983.4	2019.1	2011.3	2022.9	2038.1
15°	1957.0	1995.0	1993.9	2007.7	2017.2
17.5°	1926.4	1964.3	1962.5	1966.1	1970.6
20°	1904.7	1942.6	1937.6	1924.1	1924.1
22.5°	1873.6	1914.6	1901.9	1864.8	1852.7
25°	1827.1	1866.9	1829.0	1752.7	1724.3
27.5°	1772.8	1805.0	1728.9	1620.6	1581.1
30°	1734.0	1758.6	1646.7	1527.5	1489.6
32.5°	1693.6	1703.1	1562.9	1439.0	1398.0
35°	1627.3	1610.2	1433.3	1308.4	1272.4
37.5°	1548.9	1498.1	1308.8	1178.0	1138.1
40°	1491.5	1419.5	1221.9	1091.1	1051.2
42.5°	1427.9	1337.6	1139.7	1008.8	967.5
45°	1322.8	1216.6	1014.4	887.4	847.6
47.5°	1204.5	1099.0	897.2	774.3	740.1
50°	1119.1	1016.7	824.3	701.2	659.5
52.5°	1032.2	940.5	752.9	626.4	569.5
55°	913.5	826.3	649.8	509.4	477.1
57.5°	791.3	715.9	556.3	428.8	402.3
60°	713.8	647.4	492.7	385.4	358.8
62.5°	639.3	580.5	430.6	345.1	323.1
65°	527.6	483.9	358.8	288.6	269.6
67.5°	418.9	394.7	298.3	236.7	224.2
70°	349.1	341.5	258.0	207.3	197.8
72.5°	288.6	291.6	219.2	179.5	173.0
75°	205.6	220.8	168.7	141.5	137.7
77.5°	140.0	162.8	124.9	104.7	101.6
80°	102.8	125.6	97.0	81.5	81.5
82.5°	71.8	90.0	69.0	61.3	61.3
85°	34.9	44.4	36.9	25.2	23.3
87.5°	9.3	14.1	6.8	5.2	5.2
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: P854263

CATALOG NUMBER: SQ2-PW1-050U-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



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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	20.87	21.88	21.65	22.67	23.63	17.36	18.37	18.13	19.16	20.12
	3H	22.20	23.11	22.99	23.91	24.90	18.57	19.48	19.36	20.28	21.27
	4H	22.58	23.44	23.39	24.25	25.25	19.03	19.88	19.83	20.69	21.69
	6H	22.80	23.58	23.61	24.40	25.41	19.35	20.14	20.17	20.95	21.97
	8H	22.83	23.58	23.66	24.41	25.43	19.43	20.18	20.26	21.01	22.03
	12H	22.83	23.54	23.67	24.37	25.42	19.45	20.16	20.28	20.99	22.03
4H	2H	20.99	21.84	21.80	22.65	23.66	18.06	18.91	18.87	19.72	20.72
	3H	22.55	23.26	23.37	24.10	25.12	19.46	20.17	20.28	21.01	22.03
	4H	23.06	23.71	23.90	24.55	25.59	20.01	20.65	20.85	21.49	22.54
	6H	23.41	23.96	24.26	24.82	25.88	20.42	20.98	21.28	21.84	22.89
	8H	23.49	24.00	24.34	24.86	25.93	20.53	21.05	21.39	21.91	22.97
	12H	23.51	23.97	24.38	24.85	25.92	20.56	21.02	21.44	21.91	22.97
8H	4H	23.11	23.63	23.97	24.49	25.55	20.35	20.86	21.20	21.73	22.79
	6H	23.56	23.98	24.44	24.89	25.95	20.86	21.29	21.74	22.19	23.25
	8H	23.70	24.08	24.60	24.98	26.06	21.02	21.40	21.92	22.30	23.38
	12H	23.77	24.11	24.67	25.00	26.13	21.09	21.42	21.99	22.31	23.45
12H	4H	23.08	23.54	23.95	24.43	25.49	20.37	20.83	21.25	21.72	22.78
	6H	23.55	23.93	24.44	24.82	25.90	20.93	21.30	21.82	22.20	23.28
	8H	23.72	24.05	24.61	24.94	26.07	21.12	21.45	22.01	22.34	23.48