

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: P854264

Luminaire Tested: SQ2-PW1-050U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854264
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-940-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

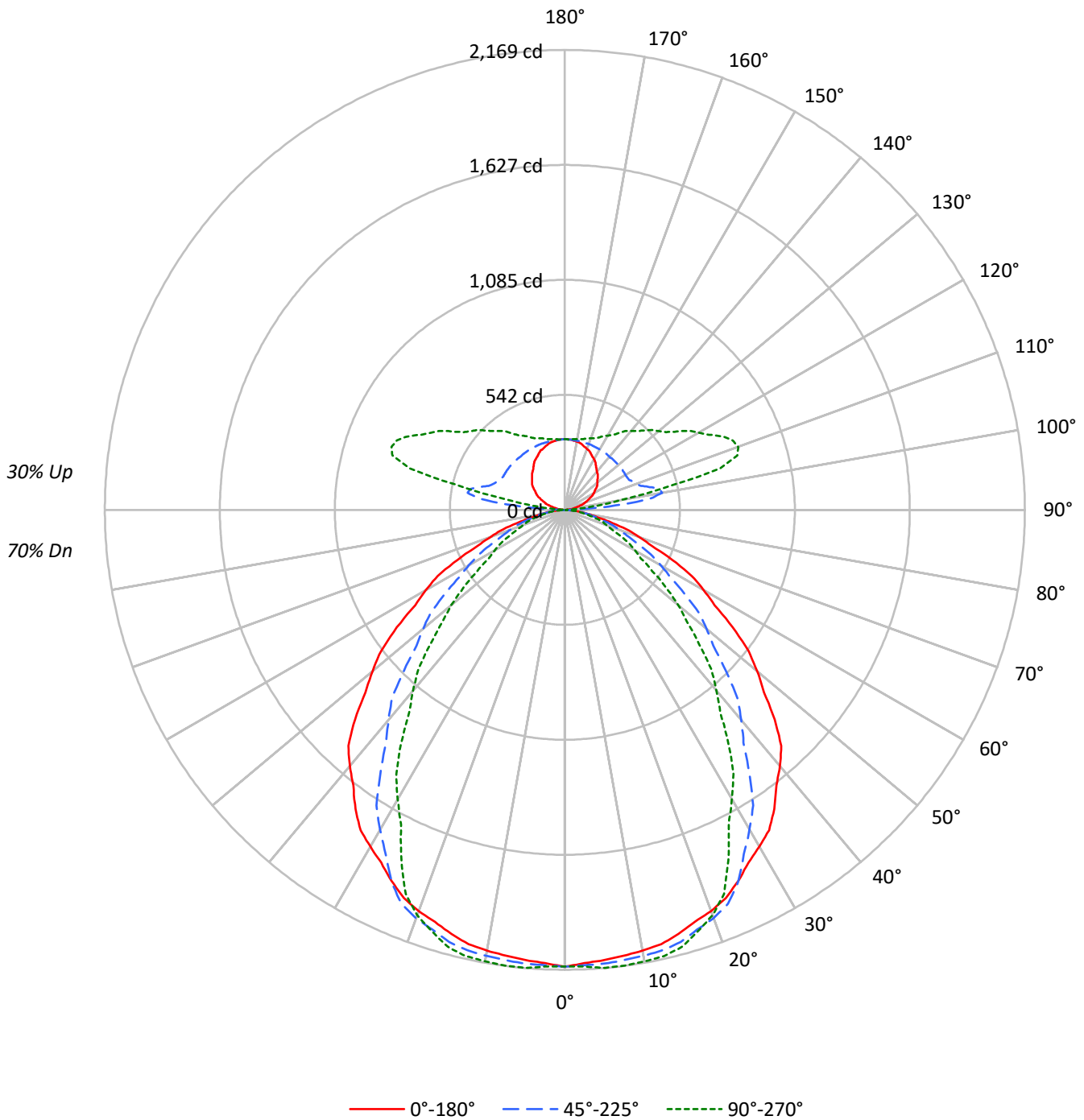
Lumens per Lamp: N/A
Luminaire Lumens: 6850.0 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P854264

CATALOG NUMBER: SQ2-PW1-050U-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854264

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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°	34781	34781	34781
5°	34548	34814	35148
10°	34611	35015	35452
15°	34603	35254	35666
20°	34617	35216	34969
25°	34429	34467	32493
30°	34194	32473	29375
35°	33928	29883	26528
40°	33253	27242	23438
45°	31949	24501	20473
50°	29735	21901	17520
55°	27201	19347	14207
60°	24380	16827	12255
65°	21318	14499	10896
70°	17434	12883	9880
75°	13568	11135	9089
80°	10107	9540	8015
85°	6836	7225	4557

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 31949 cd/sqm



TEST NUMBER: P854264

CATALOG NUMBER: SQ2-PW1-050U-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.1	3.0
10°-20°	594.3	8.7
20°-30°	874.6	12.8
30°-40°	956.3	14.0
40°-50°	857.9	12.5
50°-60°	639.9	9.3
60°-70°	404.4	5.9
70°-80°	200.3	2.9
80°-90°	47.3	0.7
90°-100°	132.7	1.9
100°-110°	421.1	6.1
110°-120°	412.9	6.0
120°-130°	336.0	4.9
130°-140°	273.9	4.0
140°-150°	213.6	3.1
150°-160°	153.9	2.2
160°-170°	94.0	1.4
170°-180°	31.7	0.5
0°-30°	1674.1	24.4
0°-40°	2630.4	38.4
0°-60°	4128.1	60.3
0°-90°	4780.2	69.8
90°-120°	966.7	14.1
90°-150°	1790.2	26.1
90°-180°	2070.0	30.2
0°-180°	6850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2154	2154	2154	2154	2154	
5°	2132	2166	2148	2150	2169	203
15°	2070	2110	2109	2124	2134	584
25°	1933	1975	1935	1854	1824	890
35°	1721	1703	1516	1384	1346	1074
45°	1399	1287	1073	939	897	1073
55°	966	874	687	539	505	863
65°	558	512	380	305	285	553
75°	218	234	178	150	146	240
85°	37	47	39	27	25	47
90°	0	1	3	3	3	2
95°	18	54	241	89	58	21
105°	73	103	415	791	758	77
115°	131	156	335	697	820	129
125°	181	203	330	546	644	161
135°	219	241	328	470	529	169
145°	256	275	328	405	441	160
155°	291	302	329	362	376	134
165°	318	321	330	343	346	90
175°	332	331	332	334	333	31
180°	333	333	333	333	333	



TEST NUMBER: P854264

CATALOG NUMBER: SQ2-PW1-050U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2154.2	2154.2	2154.2	2154.2	2154.2
2.5°	2139.4	2166.7	2149.3	2151.0	2155.8
5°	2131.6	2165.7	2148.0	2150.5	2168.6
7.5°	2121.0	2155.5	2142.3	2149.7	2167.3
10°	2111.1	2147.2	2135.7	2146.4	2162.4
12.5°	2098.0	2135.7	2127.5	2139.8	2155.8
15°	2070.1	2110.2	2109.1	2123.6	2133.7
17.5°	2037.7	2077.8	2075.8	2079.6	2084.4
20°	2014.7	2054.8	2049.6	2035.2	2035.2
22.5°	1981.9	2025.2	2011.8	1972.5	1959.7
25°	1932.6	1974.7	1934.7	1854.0	1823.9
27.5°	1875.2	1909.3	1828.8	1714.2	1672.5
30°	1834.1	1860.2	1741.8	1615.8	1575.6
32.5°	1791.5	1801.5	1653.2	1522.1	1478.8
35°	1721.3	1703.2	1516.1	1384.0	1345.9
37.5°	1638.4	1584.7	1384.4	1246.0	1203.9
40°	1577.7	1501.5	1292.5	1154.1	1112.0
42.5°	1510.4	1414.9	1205.5	1067.1	1023.3
45°	1399.2	1286.9	1073.0	938.7	896.6
47.5°	1274.1	1162.5	949.1	819.0	782.9
50°	1183.8	1075.5	871.9	741.7	697.5
52.5°	1091.9	994.8	796.4	662.5	602.4
55°	966.3	874.0	687.3	538.8	504.7
57.5°	837.1	757.2	588.4	453.6	425.5
60°	755.0	684.8	521.1	407.6	379.5
62.5°	676.2	614.0	455.5	365.1	341.8
65°	558.0	511.9	379.5	305.2	285.2
67.5°	443.1	417.5	315.5	250.4	237.2
70°	369.3	361.3	272.9	219.3	209.3
72.5°	305.3	308.5	231.8	189.8	183.0
75°	217.5	233.5	178.5	149.7	145.7
77.5°	148.1	172.2	132.1	110.7	107.5
80°	108.7	132.8	102.6	86.2	86.2
82.5°	75.9	95.2	73.0	64.8	64.8
85°	36.9	47.0	39.0	26.6	24.6
87.5°	9.8	14.9	7.2	5.6	5.6
90°	0.0	1.0	3.1	3.1	3.1
92.5°	5.9	23.3	74.4	24.8	17.4
95°	17.8	53.7	241.1	89.4	57.6
97.5°	33.1	69.6	408.3	255.2	156.6
100°	44.0	78.9	465.4	424.3	275.7
102.5°	55.8	89.0	455.3	623.0	476.9
105°	73.4	103.1	415.1	790.6	757.8
107.5°	91.0	118.4	376.7	808.0	852.3
110°	102.7	129.4	357.4	787.9	869.9



TEST NUMBER: P854264

CATALOG NUMBER: SQ2-PW1-050U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.5	139.5	346.5	753.2	857.4
115°	131.0	155.6	335.4	696.6	819.6
117.5°	147.2	170.5	331.0	642.2	766.2
120°	157.2	179.8	330.2	608.5	728.4
122.5°	167.3	189.0	330.2	581.5	693.2
125°	181.3	202.8	330.2	546.2	643.5
127.5°	193.7	214.4	330.2	518.8	601.8
130°	201.2	222.8	330.2	502.7	577.5
132.5°	208.8	230.3	329.3	490.0	557.4
135°	219.1	240.6	328.1	469.9	529.3
137.5°	229.1	251.7	327.8	450.6	503.7
140°	235.8	258.4	327.0	437.1	485.3
142.5°	244.2	265.9	327.8	423.6	468.5
145°	255.7	275.2	328.1	405.4	441.3
147.5°	267.3	283.9	328.3	389.3	418.6
150°	275.7	289.0	329.1	380.0	403.5
152.5°	282.4	294.0	329.1	372.3	391.8
155°	291.4	301.6	329.1	361.9	376.3
157.5°	301.0	308.0	330.2	355.5	365.4
160°	306.0	312.2	330.2	351.3	359.5
162.5°	311.1	315.6	330.2	347.9	353.6
165°	317.6	320.7	330.2	342.8	345.9
167.5°	323.7	324.5	331.2	339.2	341.9
170°	327.0	327.0	331.2	337.5	338.5
172.5°	328.7	329.5	331.2	335.8	336.0
175°	332.3	331.2	332.3	334.3	333.3
177.5°	333.3	332.5	332.5	334.1	332.5
180°	333.3	333.3	333.3	333.3	333.3



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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	21.06	22.08	21.84	22.87	23.83	17.55	18.56	18.33	19.35	20.32
	3H	22.40	23.30	23.19	24.10	25.10	18.77	19.67	19.56	20.47	21.47
	4H	22.78	23.63	23.59	24.44	25.44	19.22	20.07	20.03	20.88	21.89
	6H	22.99	23.77	23.81	24.59	25.61	19.55	20.33	20.37	21.15	22.17
	8H	23.03	23.77	23.86	24.61	25.63	19.63	20.37	20.46	21.21	22.23
	12H	23.03	23.74	23.86	24.57	25.61	19.64	20.35	20.48	21.18	22.23
4H	2H	21.19	22.04	22.00	22.85	23.85	18.25	19.10	19.06	19.91	20.92
	3H	22.75	23.45	23.57	24.30	25.31	19.65	20.36	20.48	21.20	22.22
	4H	23.26	23.90	24.10	24.74	25.79	20.21	20.85	21.04	21.69	22.74
	6H	23.60	24.15	24.45	25.02	26.07	20.62	21.17	21.47	22.04	23.09
	8H	23.68	24.20	24.54	25.06	26.12	20.73	21.24	21.58	22.10	23.17
	12H	23.70	24.17	24.58	25.05	26.12	20.76	21.22	21.63	22.10	23.17
8H	4H	23.31	23.83	24.16	24.69	25.75	20.54	21.06	21.40	21.92	22.98
	6H	23.75	24.18	24.63	25.08	26.14	21.06	21.48	21.94	22.38	23.45
	8H	23.90	24.27	24.79	25.17	26.25	21.22	21.60	22.11	22.49	23.58
	12H	23.97	24.30	24.86	25.19	26.33	21.29	21.62	22.18	22.51	23.64
12H	4H	23.28	23.74	24.15	24.62	25.69	20.57	21.03	21.44	21.91	22.98
	6H	23.74	24.12	24.64	25.02	26.10	21.12	21.50	22.01	22.40	23.48
	8H	23.91	24.24	24.81	25.13	26.27	21.31	21.65	22.21	22.53	23.67