

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: P854429

Luminaire Tested: SQ2-WBN-050U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854429
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-050U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

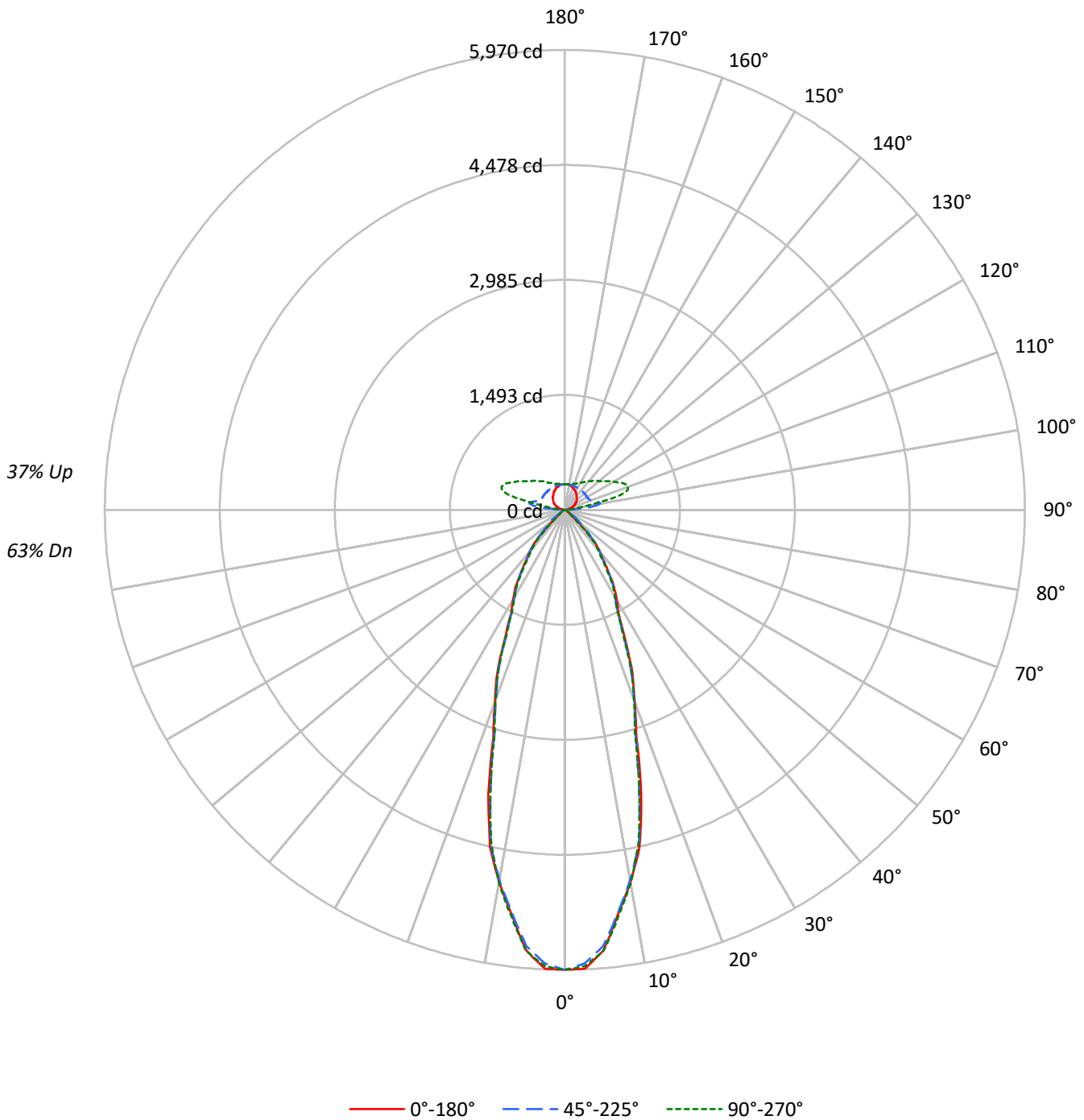
Lumens per Lamp: N/A
Luminaire Lumens: 5546.5 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 42.4
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: P854429

CATALOG NUMBER: SQ2-WBN-050U-075D-940-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	50	30	10	0	
RCR																						
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	63				
1	103	100	97	95	97	94	92	90	83	82	80	73	72	71	64	63	63	58				
2	97	91	87	83	91	86	82	79	77	74	72	68	66	65	60	59	58	54				
3	91	84	78	73	86	79	74	70	71	68	65	64	61	59	57	55	54	50				
4	85	77	71	66	80	73	68	64	66	62	59	60	57	54	54	52	50	47				
5	80	71	65	60	76	68	62	58	62	57	54	56	53	50	51	48	46	44				
6	76	66	59	55	72	63	57	53	58	53	50	53	49	47	48	46	43	41				
7	71	61	55	50	68	59	53	49	54	50	46	50	46	43	46	43	41	39				
8	67	57	51	47	64	55	49	45	51	46	43	47	43	41	43	40	38	36				
9	64	54	48	43	61	52	46	42	48	44	40	45	41	38	41	38	36	35				
10	61	51	45	41	58	49	43	40	45	41	38	42	39	36	39	36	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	96399	96399	96399
5°	93075	92148	93179
10°	80451	80069	80642
15°	64018	62001	62248
20°	45477	44878	45204
25°	32719	32078	31851
30°	24999	24328	24268
35°	19624	19291	18788
40°	14868	14667	13953
45°	8318	9939	7426
50°	2926	6119	2580
55°	1787	3339	1700
60°	1369	1744	1266
65°	1253	1295	1173
70°	1199	1199	1100
75°	1123	1123	1054
80°	986	986	986
85°	982	778	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9939 cd/sqm



TEST NUMBER: P854429

CATALOG NUMBER: SQ2-WBN-050U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	518.3	9.3
10°-20°	1030.0	18.6
20°-30°	853.0	15.4
30°-40°	613.6	11.1
40°-50°	312.6	5.6
50°-60°	81.4	1.5
60°-70°	33.8	0.6
70°-80°	18.7	0.3
80°-90°	6.0	0.1
90°-100°	133.3	2.4
100°-110°	423.0	7.6
110°-120°	414.7	7.5
120°-130°	337.5	6.1
130°-140°	275.2	5.0
140°-150°	214.5	3.9
150°-160°	154.6	2.8
160°-170°	94.4	1.7
170°-180°	31.9	0.6
0°-30°	2401.3	43.3
0°-40°	3014.9	54.4
0°-60°	3408.9	61.5
0°-90°	3467.4	62.5
90°-120°	971.1	17.5
90°-150°	1798.2	32.4
90°-180°	2079.0	37.5
0°-180°	5546.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5970	5970	5970	5970	5970	
5°	5743	5734	5686	5768	5749	518
15°	3830	3786	3709	3735	3724	1040
25°	1837	1834	1801	1785	1788	864
35°	996	1002	979	963	953	625
45°	364	419	435	405	325	291
55°	64	74	119	69	60	62
65°	33	34	34	32	31	33
75°	18	18	18	17	17	19
85°	5	5	4	5	4	6
90°	0	1	3	3	3	1
95°	18	54	242	90	58	21
105°	74	104	417	794	761	78
115°	132	156	337	700	823	130
125°	182	204	332	549	646	162
135°	220	242	330	472	532	170
145°	257	276	330	407	443	161
155°	293	303	331	364	378	135
165°	319	322	332	344	347	90
175°	334	333	334	336	335	32
180°	335	335	335	335	335	



TEST NUMBER: P854429

CATALOG NUMBER: SQ2-WBN-050U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5970.5	5970.5	5970.5	5970.5	5970.5
2.5°	5961.1	5951.2	5894.2	5941.4	5929.8
5°	5742.7	5734.5	5685.5	5767.7	5749.1
7.5°	5291.7	5298.8	5270.1	5342.8	5322.9
10°	4907.1	4925.7	4883.8	4989.1	4918.7
12.5°	4482.6	4470.5	4441.5	4457.7	4418.8
15°	3829.9	3786.4	3709.2	3735.4	3724.0
17.5°	3084.9	3101.7	3034.7	3031.9	3019.0
20°	2646.8	2652.0	2611.9	2633.0	2630.9
22.5°	2294.3	2295.4	2244.1	2275.1	2256.4
25°	1836.6	1833.5	1800.6	1784.7	1787.9
27.5°	1506.1	1493.3	1468.4	1478.8	1471.2
30°	1340.9	1330.5	1304.9	1311.0	1301.7
32.5°	1192.6	1193.0	1166.8	1163.6	1156.8
35°	995.6	1001.8	978.7	962.6	953.2
37.5°	819.8	825.6	806.0	782.5	774.7
40°	705.4	709.5	695.9	668.2	662.0
42.5°	580.8	598.2	584.9	558.7	545.0
45°	364.3	419.2	435.3	404.9	325.2
47.5°	184.3	260.3	310.5	229.3	151.0
50°	116.5	169.3	243.6	137.9	102.7
52.5°	89.4	116.5	194.5	101.9	82.4
55°	63.5	73.9	118.6	68.7	60.4
57.5°	49.1	54.9	71.0	52.0	46.8
60°	42.4	46.5	54.0	44.4	39.2
62.5°	38.1	40.6	43.8	37.7	35.8
65°	32.8	33.9	33.9	31.8	30.7
67.5°	28.0	29.0	28.8	27.7	26.7
70°	25.4	26.5	25.4	24.3	23.3
72.5°	22.0	23.1	22.0	21.8	20.8
75°	18.0	18.0	18.0	16.9	16.9
77.5°	14.0	14.2	13.1	13.1	12.3
80°	10.6	11.6	10.6	10.6	10.6
82.5°	8.9	9.1	8.0	8.0	8.0
85°	5.3	5.3	4.2	5.3	4.2
87.5°	1.7	1.9	2.3	2.3	2.3
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.4	74.8	24.9	17.5
95°	17.9	53.9	242.2	89.8	57.9
97.5°	33.3	69.9	410.2	256.3	157.3
100°	44.2	79.2	467.5	426.2	276.9
102.5°	56.0	89.4	457.4	625.8	479.0
105°	73.7	103.6	416.9	794.2	761.2
107.5°	91.4	119.0	378.4	811.7	856.2
110°	103.2	129.9	359.0	791.5	873.9



TEST NUMBER: P854429

CATALOG NUMBER: SQ2-WBN-050U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.0	140.1	348.1	756.6	861.2
115°	131.6	156.3	336.9	699.8	823.3
117.5°	147.8	171.3	332.5	645.1	769.6
120°	157.9	180.6	331.6	611.3	731.7
122.5°	168.0	189.9	331.6	584.1	696.4
125°	182.1	203.8	331.6	548.7	646.4
127.5°	194.6	215.4	331.6	521.2	604.5
130°	202.1	223.8	331.6	505.0	580.1
132.5°	209.7	231.3	330.8	492.2	559.9
135°	220.0	241.7	329.5	472.0	531.7
137.5°	230.2	252.8	329.3	452.7	506.0
140°	236.9	259.5	328.5	439.1	487.5
142.5°	245.3	267.1	329.3	425.5	470.6
145°	256.9	276.5	329.5	407.2	443.2
147.5°	268.5	285.2	329.8	391.1	420.5
150°	276.9	290.3	330.6	381.7	405.3
152.5°	283.6	295.4	330.6	374.0	393.6
155°	292.7	303.0	330.6	363.6	378.0
157.5°	302.4	309.4	331.6	357.1	367.0
160°	307.4	313.6	331.6	352.9	361.1
162.5°	312.5	317.0	331.6	349.5	355.2
165°	319.0	322.1	331.6	344.4	347.4
167.5°	325.1	325.9	332.7	340.8	343.4
170°	328.5	328.5	332.7	339.0	340.1
172.5°	330.2	331.0	332.7	337.3	337.5
175°	333.8	332.7	333.8	335.8	334.8
177.5°	334.8	334.0	334.0	335.6	334.0
180°	334.8	334.8	334.8	334.8	334.8



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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	3.93	4.67	4.81	5.54	6.64	3.54	4.29	4.43	5.16	6.26
	3H	4.97	5.63	5.87	6.51	7.64	4.54	5.20	5.44	6.08	7.21
	4H	5.40	6.02	6.31	6.91	8.04	4.96	5.58	5.88	6.47	7.61
	6H	5.71	6.28	6.64	7.18	8.32	5.30	5.86	6.22	6.76	7.90
	8H	5.81	6.35	6.74	7.26	8.40	5.40	5.93	6.33	6.84	7.99
	12H	5.88	6.39	6.81	7.29	8.46	5.45	5.95	6.38	6.86	8.02
4H	2H	4.15	4.76	5.07	5.65	6.79	3.82	4.44	4.74	5.33	6.46
	3H	5.44	5.95	6.37	6.88	8.02	5.06	5.57	5.99	6.49	7.64
	4H	6.01	6.47	6.94	7.39	8.56	5.62	6.08	6.55	7.00	8.17
	6H	6.46	6.85	7.41	7.79	8.97	6.08	6.47	7.02	7.41	8.59
	8H	6.62	6.98	7.56	7.92	9.10	6.23	6.60	7.18	7.53	8.72
	12H	6.72	7.05	7.68	8.00	9.19	6.32	6.64	7.28	7.60	8.79
8H	4H	6.15	6.52	7.10	7.45	8.64	5.80	6.17	6.75	7.10	8.29
	6H	6.73	7.03	7.70	8.01	9.19	6.38	6.68	7.35	7.66	8.85
	8H	6.98	7.24	7.96	8.21	9.41	6.62	6.89	7.61	7.85	9.06
	12H	7.17	7.40	8.15	8.35	9.61	6.79	7.02	7.77	7.98	9.24
12H	4H	6.12	6.45	7.09	7.40	8.59	5.78	6.11	6.75	7.06	8.25
	6H	6.75	7.02	7.73	7.98	9.19	6.42	6.68	7.40	7.65	8.85
	8H	7.03	7.26	8.01	8.21	9.47	6.69	6.92	7.67	7.88	9.13

END OF REPORT