

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: P854487

Luminaire Tested: SQ2-WBN-150U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854487
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-150U-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

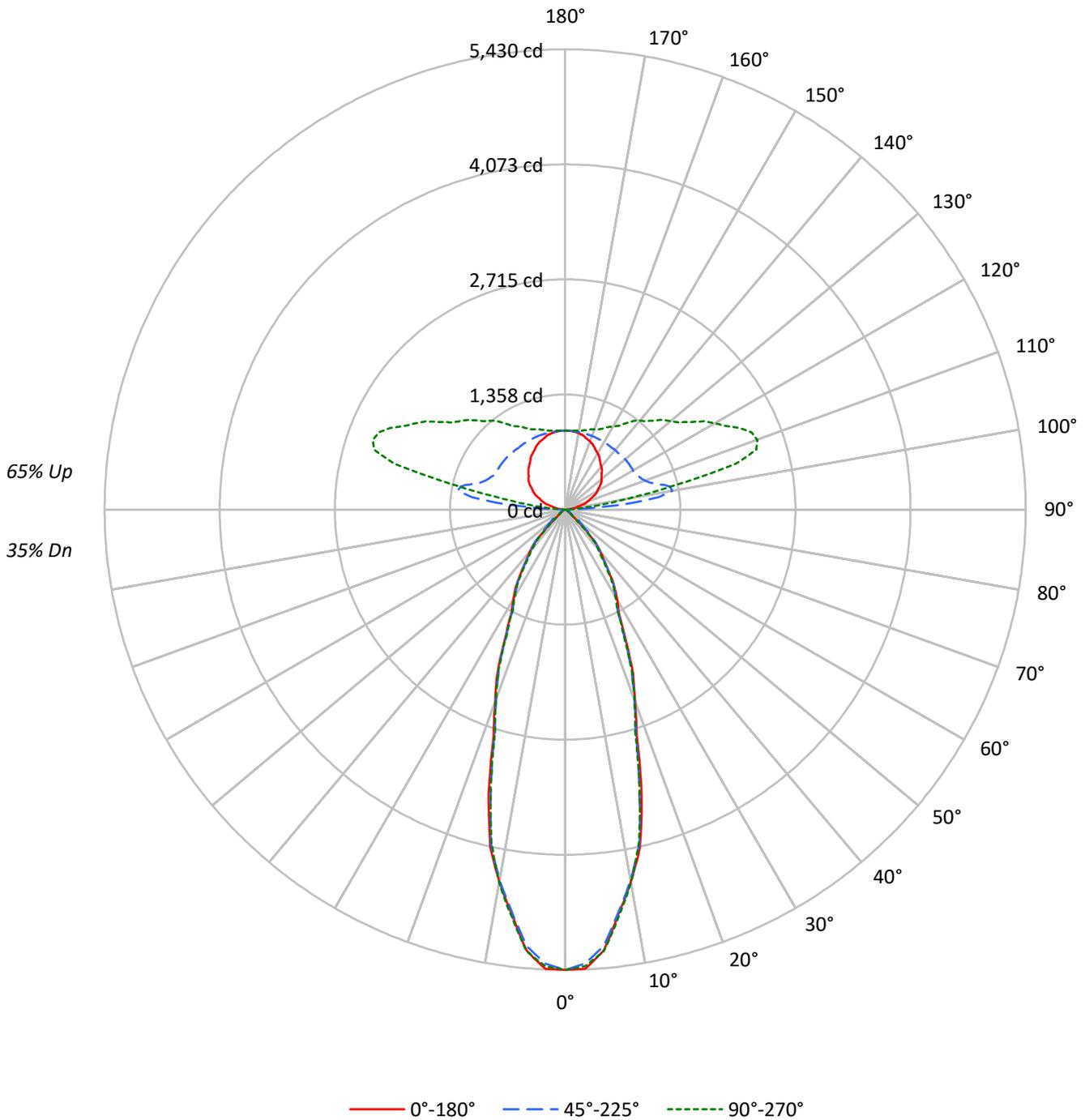
Lumens per Lamp: N/A
Luminaire Lumens: 8910.2 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 84.2
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

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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	96	92	89	86	87	84	81	79	68	66	65	54	53	52	40	40	39	33
2	89	83	78	74	81	76	71	68	62	59	57	49	48	46	38	37	36	31
3	83	75	69	64	75	68	63	59	56	53	50	45	43	41	35	34	33	29
4	77	68	61	56	70	62	57	52	52	48	45	42	40	37	33	32	30	27
5	71	62	55	50	65	57	51	46	48	43	40	39	36	34	31	30	28	25
6	67	56	49	44	61	52	46	42	44	40	37	36	34	31	29	28	26	23
7	62	52	45	40	57	48	42	38	41	36	33	34	31	29	28	26	25	22
8	58	48	41	37	53	44	39	35	38	34	31	32	29	27	26	24	23	21
9	55	44	38	33	50	41	36	32	35	31	28	30	27	25	25	23	22	20
10	52	41	35	31	48	38	33	29	33	29	26	28	25	23	24	22	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	87669	87669	87669
5°	84647	83804	84741
10°	73166	72818	73339
15°	58221	56386	56612
20°	41361	40814	41111
25°	29756	29172	28967
30°	22736	22124	22070
35°	17848	17542	17087
40°	13521	13340	12688
45°	7567	9040	6752
50°	2663	5564	2346
55°	1627	3037	1545
60°	1243	1586	1150
65°	1142	1177	1066
70°	1090	1090	1001
75°	1023	1023	961
80°	893	893	893
85°	889	722	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9040 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	471.3	5.3
10°-20°	936.7	10.5
20°-30°	775.7	8.7
30°-40°	558.1	6.3
40°-50°	284.3	3.2
50°-60°	74.0	0.8
60°-70°	30.7	0.3
70°-80°	17.0	0.2
80°-90°	6.1	0.1
90°-100°	355.3	4.0
100°-110°	1163.6	13.1
110°-120°	1150.4	12.9
120°-130°	940.4	10.6
130°-140°	767.4	8.6
140°-150°	597.2	6.7
150°-160°	430.0	4.8
160°-170°	263.1	3.0
170°-180°	88.9	1.0
0°-30°	2183.8	24.5
0°-40°	2741.9	30.8
0°-60°	3100.2	34.8
0°-90°	3154.0	35.4
90°-120°	2669.3	30.0
90°-150°	4974.2	55.8
90°-180°	5756.0	64.6
0°-180°	8910.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5430	5430	5430	5430	5430	
5°	5223	5215	5171	5245	5228	471
15°	3483	3444	3373	3397	3387	945
25°	1670	1667	1638	1623	1626	786
35°	906	911	890	875	867	568
45°	331	381	396	368	296	265
55°	58	67	108	62	55	57
65°	30	31	31	29	28	30
75°	16	16	16	15	15	17
85°	5	5	4	5	4	5
90°	1	3	8	7	8	3
95°	50	144	646	230	150	57
105°	202	288	1155	2194	2085	213
115°	364	435	938	1939	2276	360
125°	507	565	925	1529	1796	451
135°	611	675	917	1319	1487	472
145°	714	766	915	1134	1243	447
155°	814	841	921	1015	1054	375
165°	888	897	925	961	971	250
175°	929	929	930	936	934	88
180°	933	933	933	933	933	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5429.8	5429.8	5429.8	5429.8	5429.8
2.5°	5421.3	5412.3	5360.5	5403.4	5392.8
5°	5222.7	5215.2	5170.7	5245.4	5228.5
7.5°	4812.6	4819.0	4792.9	4859.0	4840.9
10°	4462.7	4479.7	4441.5	4537.4	4473.3
12.5°	4076.6	4065.7	4039.3	4054.1	4018.7
15°	3483.1	3443.5	3373.3	3397.1	3386.8
17.5°	2805.5	2820.8	2759.9	2757.3	2745.6
20°	2407.2	2411.9	2375.4	2394.6	2392.7
22.5°	2086.6	2087.5	2040.9	2069.1	2052.1
25°	1670.3	1667.4	1637.5	1623.1	1626.0
27.5°	1369.7	1358.1	1335.4	1344.9	1337.9
30°	1219.5	1210.1	1186.7	1192.3	1183.8
32.5°	1084.6	1085.0	1061.1	1058.3	1052.1
35°	905.5	911.1	890.0	875.4	866.9
37.5°	745.6	750.8	733.0	711.7	704.5
40°	641.5	645.3	632.9	607.7	602.0
42.5°	528.2	544.1	531.9	508.1	495.7
45°	331.4	381.3	395.9	368.2	295.7
47.5°	167.6	236.7	282.4	208.6	137.4
50°	106.0	154.0	221.5	125.5	93.4
52.5°	81.3	106.0	176.9	92.6	74.9
55°	57.8	67.2	107.9	62.4	54.9
57.5°	44.7	50.0	64.5	47.3	42.6
60°	38.5	42.3	49.1	40.3	35.6
62.5°	34.7	36.9	39.9	34.3	32.6
65°	29.9	30.8	30.8	28.9	27.9
67.5°	25.4	26.4	26.2	25.2	24.3
70°	23.1	24.1	23.1	22.1	21.2
72.5°	20.0	21.0	20.0	19.8	18.9
75°	16.4	16.4	16.4	15.4	15.4
77.5°	12.7	12.9	11.9	11.9	11.2
80°	9.6	10.6	9.6	9.6	9.6
82.5°	8.1	8.3	7.3	7.3	7.3
85°	4.8	4.8	3.9	4.8	3.9
87.5°	1.7	2.1	3.1	2.9	3.1
90°	1.0	2.8	7.7	6.7	7.7
92.5°	16.3	59.4	182.5	59.3	47.5
95°	49.8	144.5	646.0	230.1	149.5
97.5°	90.5	190.6	1108.4	670.5	415.6
100°	118.9	214.4	1282.4	1145.2	759.1
102.5°	151.1	244.4	1263.3	1687.5	1308.1
105°	202.2	288.5	1155.0	2194.3	2084.7
107.5°	252.7	331.8	1049.3	2241.7	2362.3
110°	285.6	362.5	998.7	2186.6	2410.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	317.1	391.7	968.1	2090.6	2377.6
115°	364.2	435.4	938.4	1939.0	2276.4
117.5°	410.0	476.6	927.0	1790.0	2132.6
120°	439.9	502.7	924.0	1703.1	2036.8
122.5°	466.8	528.1	924.0	1628.2	1937.9
125°	507.0	565.1	924.9	1529.1	1796.2
127.5°	541.2	600.4	923.8	1456.0	1688.5
130°	562.6	622.6	923.0	1411.8	1621.7
132.5°	581.8	643.3	920.7	1373.8	1564.2
135°	610.6	675.2	917.3	1318.8	1486.6
137.5°	640.8	704.9	915.2	1261.5	1413.2
140°	662.3	724.2	914.4	1225.3	1368.7
142.5°	683.8	741.9	914.4	1186.7	1316.6
145°	714.1	766.5	915.3	1134.4	1243.1
147.5°	745.9	789.6	916.7	1089.0	1171.1
150°	765.8	804.2	918.2	1062.6	1132.0
152.5°	785.8	819.7	919.0	1040.9	1098.2
155°	813.7	840.9	921.1	1015.0	1054.3
157.5°	838.9	858.5	923.2	994.6	1023.1
160°	855.0	870.9	924.0	983.0	1005.4
162.5°	868.8	881.7	924.0	973.6	990.1
165°	888.5	896.9	924.9	960.6	970.9
167.5°	905.2	909.3	926.1	950.6	956.2
170°	914.4	916.3	926.8	945.1	947.0
172.5°	921.3	922.4	929.1	941.2	941.6
175°	928.8	928.8	929.7	936.4	934.5
177.5°	932.6	931.8	931.1	935.6	932.6
180°	932.6	932.6	932.6	932.6	932.6



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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	0.83	1.46	1.94	2.54	4.02	0.44	1.07	1.55	2.15	3.63
	3H	1.88	2.44	2.99	3.52	5.02	1.44	2.00	2.55	3.09	4.58
	4H	2.30	2.83	3.42	3.92	5.42	1.86	2.39	2.98	3.48	4.98
	6H	2.61	3.10	3.74	4.19	5.70	2.19	2.67	3.31	3.77	5.28
	8H	2.71	3.17	3.84	4.28	5.78	2.29	2.75	3.42	3.85	5.36
	12H	2.77	3.21	3.90	4.31	5.83	2.33	2.77	3.47	3.87	5.40
4H	2H	1.04	1.57	2.17	2.66	4.17	0.71	1.24	1.84	2.33	3.83
	3H	2.34	2.78	3.47	3.90	5.41	1.95	2.39	3.08	3.51	5.02
	4H	2.90	3.31	4.04	4.41	5.95	2.51	2.91	3.64	4.02	5.55
	6H	3.35	3.70	4.49	4.83	6.35	2.97	3.31	4.11	4.44	5.96
	8H	3.51	3.83	4.65	4.95	6.49	3.12	3.44	4.26	4.56	6.10
	12H	3.61	3.90	4.76	5.03	6.58	3.21	3.49	4.36	4.63	6.17
8H	4H	3.04	3.37	4.18	4.49	6.02	2.69	3.01	3.83	4.13	5.67
	6H	3.63	3.89	4.79	5.06	6.59	3.27	3.54	4.43	4.70	6.24
	8H	3.88	4.11	5.04	5.25	6.80	3.52	3.75	4.68	4.89	6.45
	12H	4.06	4.26	5.23	5.40	6.99	3.69	3.89	4.85	5.03	6.62
12H	4H	3.02	3.31	4.17	4.44	5.98	2.67	2.96	3.82	4.09	5.64
	6H	3.66	3.88	4.82	5.03	6.58	3.31	3.54	4.48	4.68	6.24
	8H	3.92	4.12	5.09	5.26	6.85	3.58	3.78	4.74	4.92	6.51