

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: P854476

Luminaire Tested: SQ2-WBN-125U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854476
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-125U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

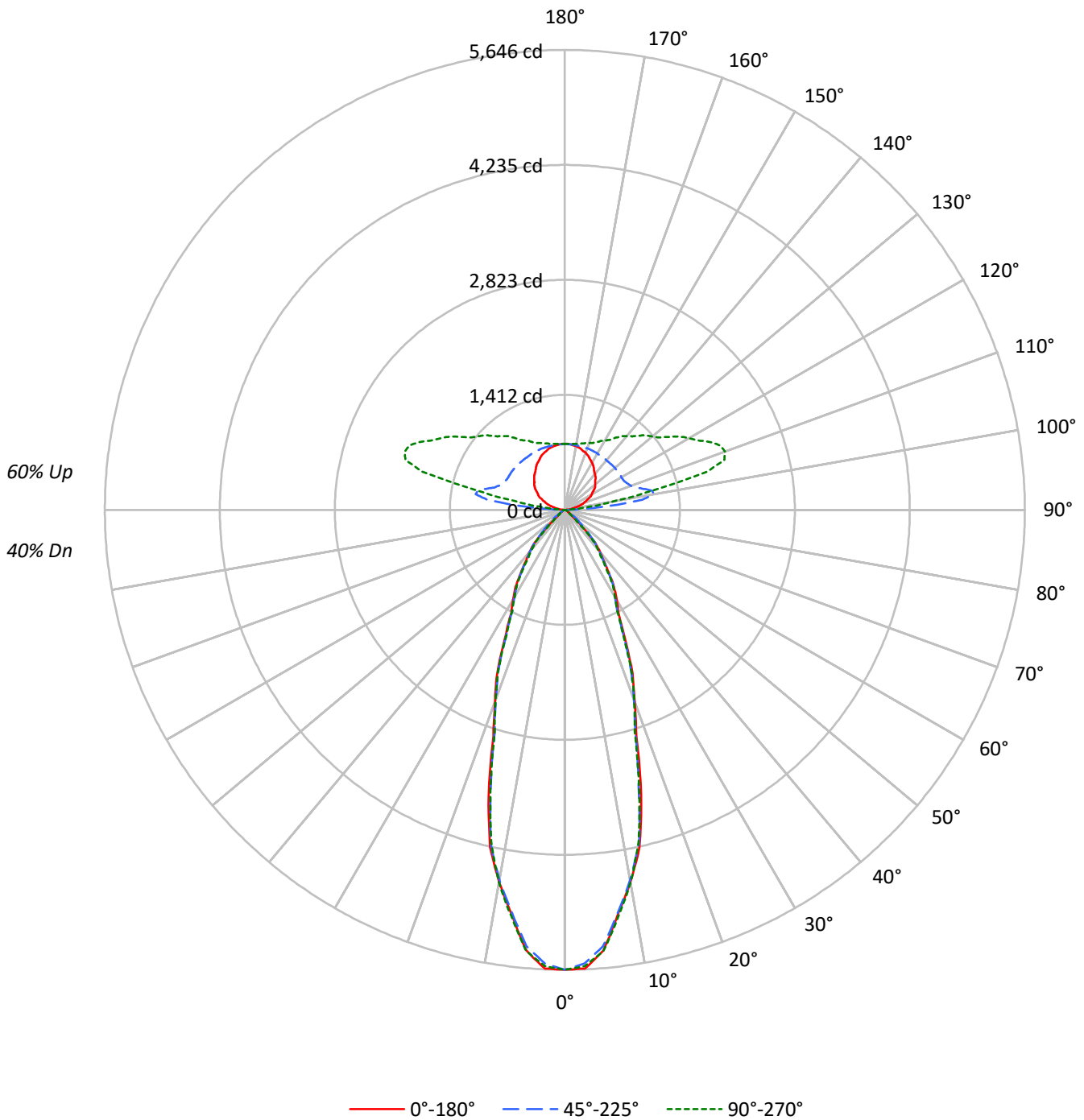
Lumens per Lamp: N/A
Luminaire Lumens: 8271.7 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 71.5
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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	40				
1	97	94	91	88	89	86	83	81	71	69	67	57	56	55	44	43	43	37				
2	90	84	79	75	82	77	73	70	64	61	59	52	50	49	41	40	39	34				
3	84	76	70	65	77	70	65	61	59	55	52	48	46	44	39	37	36	32				
4	78	69	63	58	71	64	58	54	54	50	47	45	42	40	36	35	33	30				
5	73	63	56	51	67	58	53	48	50	46	42	42	39	37	34	32	31	28				
6	68	58	51	46	62	54	48	44	46	42	39	39	36	34	32	30	29	26				
7	64	53	46	42	59	50	44	40	43	39	35	36	33	31	31	29	27	25				
8	60	49	43	38	55	46	40	36	40	36	33	34	31	29	29	27	25	23				
9	56	46	39	35	52	43	37	33	37	33	30	32	29	27	27	25	24	22				
10	53	43	36	32	49	40	35	31	35	31	28	31	27	25	26	24	23	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	91151	91151	91151
5°	88010	87133	88107
10°	76072	75710	76253
15°	60533	58626	58860
20°	43003	42434	42744
25°	30937	30332	30116
30°	23638	23004	22948
35°	18555	18240	17767
40°	14058	13869	13192
45°	7866	9398	7021
50°	2768	5785	2439
55°	1692	3158	1607
60°	1295	1650	1198
65°	1184	1223	1108
70°	1133	1133	1039
75°	1061	1061	998
80°	930	930	930
85°	926	741	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9398 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	490.0	5.9
10°-20°	974.0	11.8
20°-30°	806.6	9.8
30°-40°	580.2	7.0
40°-50°	295.6	3.6
50°-60°	77.0	0.9
60°-70°	31.9	0.4
70°-80°	17.7	0.2
80°-90°	6.2	0.1
90°-100°	309.5	3.7
100°-110°	1007.8	12.2
110°-120°	996.9	12.1
120°-130°	814.6	9.8
130°-140°	665.8	8.0
140°-150°	518.6	6.3
150°-160°	373.8	4.5
160°-170°	228.5	2.8
170°-180°	77.1	0.9
0°-30°	2270.6	27.4
0°-40°	2850.8	34.5
0°-60°	3223.4	39.0
0°-90°	3279.1	39.6
90°-120°	2314.2	28.0
90°-150°	4313.2	52.1
90°-180°	4993.0	60.4
0°-180°	8271.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5646	5646	5646	5646	5646	
5°	5430	5422	5376	5454	5436	490
15°	3621	3580	3507	3532	3521	983
25°	1737	1734	1703	1688	1690	817
35°	941	947	925	910	901	591
45°	344	396	412	383	308	275
55°	60	70	112	65	57	59
65°	31	32	32	30	29	31
75°	17	17	17	16	16	18
85°	5	5	4	5	4	5
90°	0	3	7	6	6	2
95°	42	127	567	202	124	49
105°	171	247	998	1907	1806	183
115°	316	378	813	1676	1972	313
125°	440	490	802	1323	1560	392
135°	532	587	798	1142	1288	411
145°	621	667	796	984	1077	389
155°	709	732	801	881	914	326
165°	773	780	803	833	843	218
175°	806	806	806	812	810	76
180°	809	809	809	809	809	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5645.5	5645.5	5645.5	5645.5	5645.5
2.5°	5636.7	5627.3	5573.4	5618.0	5607.0
5°	5430.2	5422.3	5376.1	5453.8	5436.2
7.5°	5003.7	5010.4	4983.3	5052.0	5033.2
10°	4640.0	4657.6	4617.9	4717.6	4651.0
12.5°	4238.6	4227.2	4199.7	4215.1	4178.3
15°	3621.4	3580.3	3507.3	3532.1	3521.3
17.5°	2917.0	2932.9	2869.5	2866.8	2854.7
20°	2502.8	2507.7	2469.7	2489.7	2487.7
22.5°	2169.5	2170.4	2122.0	2151.2	2133.6
25°	1736.6	1733.7	1702.6	1687.6	1690.5
27.5°	1424.1	1412.0	1388.5	1398.3	1391.1
30°	1267.9	1258.1	1233.9	1239.7	1230.9
32.5°	1127.7	1128.1	1103.3	1100.3	1093.8
35°	941.4	947.3	925.4	910.2	901.4
37.5°	775.2	780.6	762.1	739.9	732.5
40°	667.0	670.9	658.0	631.8	625.9
42.5°	549.2	565.7	553.0	528.3	515.4
45°	344.5	396.4	411.6	382.9	307.5
47.5°	174.3	246.1	293.6	216.8	142.8
50°	110.2	160.1	230.3	130.4	97.1
52.5°	84.5	110.2	183.9	96.3	77.9
55°	60.1	69.9	112.2	64.9	57.1
57.5°	46.5	52.0	67.1	49.2	44.3
60°	40.1	44.0	51.1	42.0	37.1
62.5°	36.1	38.4	41.5	35.6	33.9
65°	31.0	32.0	32.0	30.0	29.0
67.5°	26.4	27.4	27.2	26.2	25.2
70°	24.0	25.0	24.0	23.0	22.0
72.5°	20.8	21.8	20.8	20.6	19.6
75°	17.0	17.0	17.0	16.0	16.0
77.5°	13.2	13.4	12.4	12.4	11.6
80°	10.0	11.0	10.0	10.0	10.0
82.5°	8.4	8.6	7.6	7.6	7.6
85°	5.0	5.0	4.0	5.0	4.0
87.5°	1.6	2.2	3.0	2.8	2.8
90°	0.0	2.9	7.0	6.0	6.0
92.5°	14.3	51.5	164.6	54.3	41.8
95°	41.8	127.4	567.3	202.3	124.4
97.5°	78.6	165.8	962.9	586.4	357.9
100°	102.5	188.2	1111.8	991.4	643.0
102.5°	129.6	212.1	1093.5	1466.7	1115.2
105°	171.2	247.1	998.3	1906.7	1805.5
107.5°	216.2	287.6	907.9	1944.9	2052.2
110°	248.8	314.0	864.9	1897.5	2091.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	275.9	340.3	837.9	1812.0	2061.7
115°	316.5	377.8	813.2	1675.9	1971.7
117.5°	358.3	413.6	803.6	1551.2	1845.7
120°	382.2	436.7	801.2	1474.6	1759.7
122.5°	405.3	459.0	802.0	1408.1	1673.7
125°	439.9	490.5	802.2	1323.2	1559.7
127.5°	469.6	521.4	802.0	1259.6	1456.8
130°	488.7	541.3	801.2	1223.3	1399.4
132.5°	505.4	560.3	800.4	1189.6	1354.8
135°	531.5	587.0	798.3	1142.0	1288.0
137.5°	557.0	612.8	796.1	1093.6	1223.3
140°	575.3	628.8	795.3	1060.8	1183.4
142.5°	592.8	644.0	795.3	1029.5	1138.9
145°	621.1	666.8	796.3	983.5	1076.9
147.5°	648.6	688.3	797.7	944.4	1016.6
150°	666.9	701.9	799.2	921.1	982.4
152.5°	685.2	714.0	800.0	903.3	952.1
155°	708.7	732.0	801.2	880.6	913.7
157.5°	731.0	747.7	802.4	863.9	887.0
160°	744.5	758.1	803.2	853.4	871.9
162.5°	756.4	767.0	803.2	844.6	858.4
165°	773.4	780.2	803.2	833.3	843.0
167.5°	785.3	789.6	803.4	824.8	829.9
170°	793.3	795.2	804.2	819.2	821.1
172.5°	798.9	800.0	805.8	816.0	815.6
175°	806.2	806.2	806.2	812.1	810.2
177.5°	809.2	808.4	807.6	811.5	808.4
180°	809.2	809.2	809.2	809.2	809.2



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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	1.48	2.12	2.55	3.17	4.60	1.09	1.73	2.17	2.79	4.21
	3H	2.52	3.09	3.60	4.15	5.60	2.08	2.66	3.17	3.72	5.16
	4H	2.94	3.48	4.03	4.54	5.99	2.50	3.04	3.60	4.11	5.56
	6H	3.25	3.75	4.35	4.81	6.27	2.83	3.33	3.93	4.40	5.86
	8H	3.35	3.82	4.45	4.90	6.35	2.93	3.40	4.04	4.48	5.94
	12H	3.41	3.86	4.52	4.93	6.41	2.98	3.43	4.09	4.50	5.98
4H	2H	1.69	2.23	2.79	3.29	4.74	1.36	1.90	2.46	2.96	4.42
	3H	2.98	3.43	4.08	4.52	5.98	2.60	3.05	3.70	4.14	5.60
	4H	3.54	3.95	4.65	5.03	6.52	3.15	3.56	4.26	4.64	6.13
	6H	3.99	4.34	5.11	5.45	6.92	3.61	3.96	4.72	5.06	6.54
	8H	4.15	4.47	5.26	5.57	7.06	3.77	4.09	4.88	5.19	6.68
	12H	4.25	4.54	5.38	5.65	7.15	3.85	4.14	4.98	5.25	6.75
8H	4H	3.68	4.01	4.79	5.10	6.59	3.33	3.66	4.45	4.76	6.25
	6H	4.27	4.53	5.40	5.67	7.16	3.92	4.19	5.05	5.32	6.81
	8H	4.51	4.75	5.65	5.87	7.37	4.16	4.39	5.30	5.51	7.02
	12H	4.70	4.90	5.84	6.02	7.57	4.33	4.53	5.47	5.65	7.19
12H	4H	3.65	3.95	4.78	5.06	6.55	3.31	3.61	4.44	4.72	6.21
	6H	4.29	4.52	5.43	5.64	7.15	3.96	4.19	5.09	5.31	6.81
	8H	4.56	4.76	5.70	5.88	7.43	4.22	4.43	5.36	5.54	7.09