

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: P854209

Luminaire Tested: SQ2-PR1-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854209
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-100U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

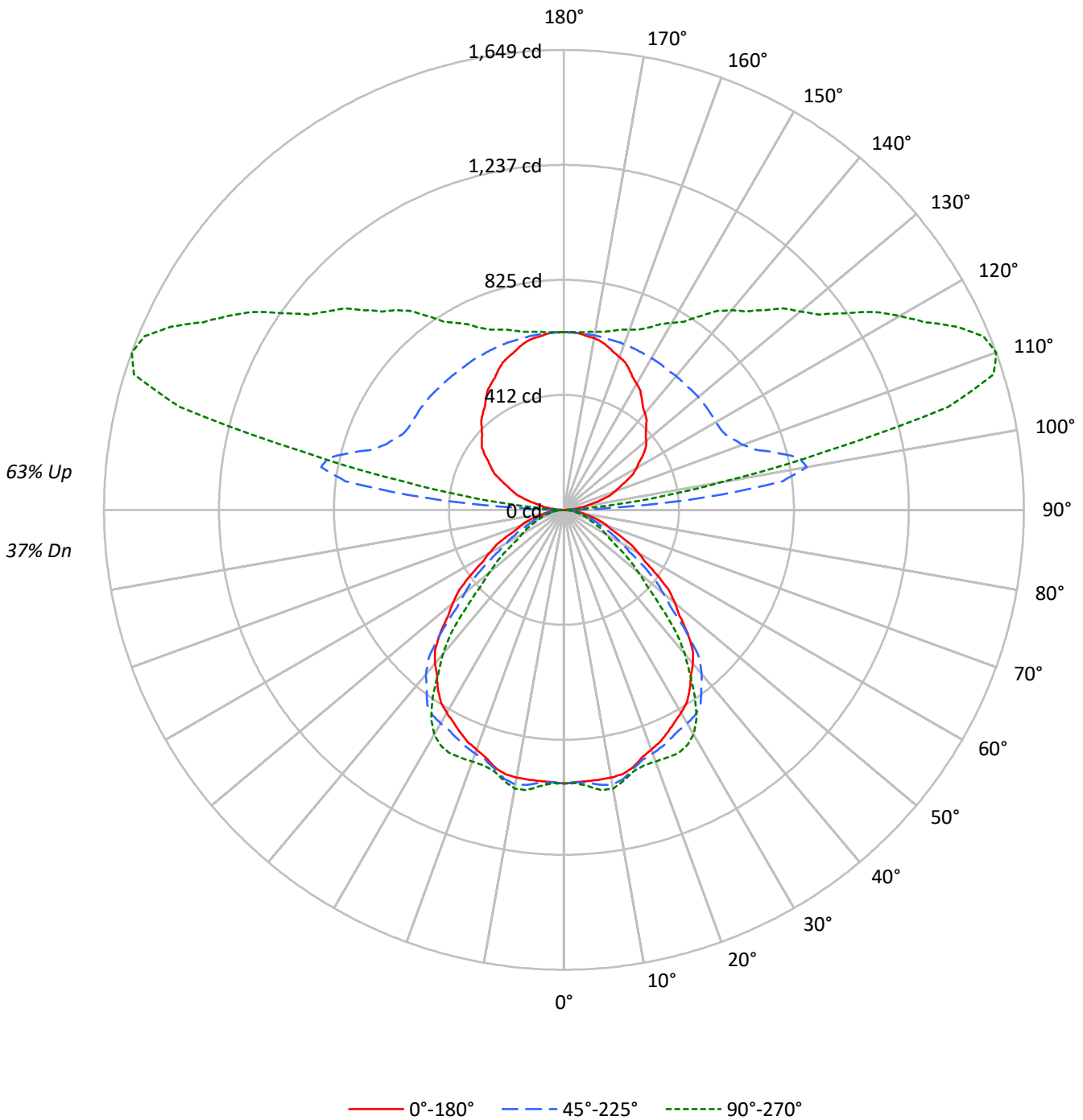
Lumens per Lamp: N/A
Luminaire Lumens: 6324.4 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
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

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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37				37
1	95	91	88	84	86	83	80	77	67	65	63	53	52	51	40	39	38				32	
2	87	80	75	70	79	73	68	64	60	56	53	47	45	43	36	34	33				28	
3	80	71	64	58	72	65	59	54	53	49	45	42	39	37	32	30	29				24	
4	73	63	55	50	66	58	51	46	47	43	39	38	34	32	29	27	25				21	
5	67	56	48	43	61	51	45	40	42	37	34	34	30	28	26	24	22				18	
6	62	50	43	37	56	46	39	35	38	33	29	31	27	24	24	21	19				16	
7	57	46	38	33	52	42	35	30	35	30	26	28	24	22	22	19	17				15	
8	53	41	34	29	48	38	31	27	32	27	23	26	22	19	20	18	16				13	
9	49	38	30	26	45	35	28	24	29	24	21	24	20	17	19	16	14				12	
10	46	34	28	23	42	32	26	21	27	22	19	22	18	16	17	15	13				11	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15839	15839	15839
5°	15819	15916	16110
10°	15985	16395	16641
15°	15980	16064	16197
20°	15722	15962	16495
25°	15677	16123	17174
30°	15661	16481	17339
35°	15512	16833	16143
40°	15154	16208	14206
45°	14340	14225	11234
50°	13036	11630	8716
55°	11457	9571	6784
60°	9914	7653	5586
65°	8558	6342	4890
70°	7695	5618	4343
75°	7049	4866	3992
80°	6137	3905	3905
85°	4446	3520	1853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15502 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	1.5
10°-20°	274.2	4.3
20°-30°	423.9	6.7
30°-40°	509.9	8.1
40°-50°	457.8	7.2
50°-60°	306.7	4.8
60°-70°	178.4	2.8
70°-80°	91.6	1.4
80°-90°	23.8	0.4
90°-100°	266.0	4.2
100°-110°	804.4	12.7
110°-120°	785.2	12.4
120°-130°	641.7	10.1
130°-140°	523.8	8.3
140°-150°	407.7	6.4
150°-160°	293.9	4.6
160°-170°	179.9	2.8
170°-180°	60.8	1.0
0°-30°	792.9	12.5
0°-40°	1302.8	20.6
0°-60°	2067.3	32.7
0°-90°	2361.1	37.3
90°-120°	1855.6	29.3
90°-150°	3428.7	54.2
90°-180°	3963.0	62.7
0°-180°	6324.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	976	993	982	984	994	93
15°	956	995	961	964	969	268
25°	880	915	905	939	964	406
35°	787	794	854	838	819	491
45°	628	679	623	525	492	480
55°	407	423	340	262	241	366
65°	224	229	166	135	128	227
75°	113	110	78	66	64	120
85°	24	19	19	13	10	30
90°	0	2	12	7	6	2
95°	33	104	502	185	117	39
105°	140	197	790	1500	1426	147
115°	249	297	639	1322	1553	246
125°	348	386	630	1044	1229	309
135°	417	461	626	900	1013	323
145°	487	523	626	774	847	305
155°	555	573	630	694	721	255
165°	607	614	633	657	665	171
175°	635	635	636	641	639	60
180°	637	637	637	637	637	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	981.0	981.0	981.0	981.0	981.0
2.5°	977.0	988.7	977.8	978.7	981.0
5°	976.0	992.6	982.0	984.2	994.0
7.5°	975.8	999.5	994.4	1000.5	1013.4
10°	975.0	1003.4	1000.0	1001.3	1015.0
12.5°	970.2	1003.3	988.0	986.8	994.2
15°	956.0	995.1	961.0	964.1	969.0
17.5°	931.0	971.9	939.4	950.4	960.0
20°	915.0	955.1	929.0	943.4	960.0
22.5°	900.6	940.7	919.4	939.5	962.4
25°	880.0	915.2	905.0	938.6	964.0
27.5°	858.4	879.1	891.2	936.2	954.0
30°	840.0	853.7	884.0	923.2	930.0
32.5°	820.0	828.2	874.4	894.8	886.0
35°	787.0	793.9	854.0	837.6	819.0
37.5°	747.8	761.9	808.2	760.9	739.6
40°	719.0	742.5	769.0	698.5	674.0
42.5°	683.8	721.4	717.0	627.1	597.2
45°	628.0	678.9	623.0	525.2	492.0
47.5°	562.2	614.4	523.0	435.7	404.6
50°	519.0	561.0	463.0	381.2	347.0
52.5°	475.0	505.3	411.8	330.1	299.0
55°	407.0	422.6	340.0	262.5	241.0
57.5°	344.6	354.6	277.8	212.0	196.2
60°	307.0	313.8	237.0	185.7	173.0
62.5°	272.6	277.9	204.2	163.4	153.8
65°	224.0	228.9	166.0	134.8	128.0
67.5°	185.4	187.9	136.6	112.1	105.6
70°	163.0	164.0	119.0	96.9	92.0
72.5°	143.0	141.6	102.2	84.1	80.8
75°	113.0	110.1	78.0	66.0	64.0
77.5°	84.4	81.3	54.8	50.8	50.8
80°	66.0	62.1	42.0	42.0	42.0
82.5°	49.2	43.7	32.4	32.4	31.6
85°	24.0	19.1	19.0	12.9	10.0
87.5°	6.4	6.8	4.8	3.8	3.6
90°	0.0	2.0	12.0	7.0	6.0
92.5°	11.2	45.2	162.4	53.8	38.8
95°	33.0	104.3	501.9	185.4	117.0
97.5°	63.8	132.8	791.0	523.4	318.7
100°	83.0	150.4	883.8	854.4	573.8
102.5°	104.6	169.7	864.6	1198.4	955.3
105°	140.0	196.7	789.8	1499.9	1425.6
107.5°	173.6	227.7	717.8	1529.7	1615.8
110°	195.9	247.8	681.8	1492.2	1648.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	217.5	267.8	660.2	1429.1	1627.0
115°	248.9	296.8	638.8	1321.9	1552.6
117.5°	280.1	325.5	631.2	1221.4	1457.6
120°	300.9	343.9	628.8	1162.8	1389.6
122.5°	320.1	360.8	628.8	1111.3	1320.8
125°	347.9	386.0	629.8	1043.9	1228.7
127.5°	370.5	410.0	628.8	993.1	1150.7
130°	384.9	426.0	628.8	964.0	1106.7
132.5°	397.7	439.5	628.0	937.3	1069.1
135°	416.9	460.9	625.8	900.3	1012.7
137.5°	438.3	480.1	625.8	860.7	964.9
140°	451.9	492.9	625.8	835.0	933.8
142.5°	465.5	505.0	625.0	811.5	897.8
145°	486.9	523.0	625.8	774.4	846.8
147.5°	508.3	539.0	627.0	743.9	799.4
150°	521.9	550.2	627.8	726.9	773.8
152.5°	534.7	559.9	628.6	712.3	750.6
155°	554.9	573.4	629.8	694.4	720.8
157.5°	572.4	587.5	631.0	681.2	699.6
160°	582.8	595.6	631.8	673.1	686.8
162.5°	593.2	602.8	632.6	665.9	677.2
165°	606.8	613.7	632.8	657.0	664.8
167.5°	618.4	622.0	634.0	650.1	653.4
170°	624.8	626.8	634.8	646.8	647.8
172.5°	628.8	630.0	634.8	643.6	643.8
175°	634.8	634.8	635.8	640.8	638.8
177.5°	637.6	636.8	636.0	638.4	636.8
180°	636.8	636.8	636.8	636.8	636.8

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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	15.06	15.79	16.13	16.86	18.30	11.79	12.52	12.85	13.58	15.03
	3H	16.29	16.94	17.36	18.01	19.47	12.84	13.50	13.92	14.57	16.03
	4H	16.73	17.35	17.82	18.42	19.89	13.24	13.86	14.32	14.93	16.40
	6H	17.04	17.61	18.14	18.69	20.17	13.56	14.13	14.66	15.21	16.69
	8H	17.12	17.66	18.22	18.75	20.23	13.64	14.18	14.74	15.28	16.75
	12H	17.15	17.66	18.25	18.75	20.24	13.65	14.16	14.75	15.25	16.75
4H	2H	15.13	15.74	16.22	16.82	18.29	12.34	12.96	13.43	14.03	15.50
	3H	16.59	17.10	17.69	18.20	19.68	13.60	14.11	14.70	15.21	16.69
	4H	17.18	17.64	18.28	18.74	20.24	14.10	14.57	15.20	15.66	17.16
	6H	17.62	18.02	18.73	19.14	20.63	14.53	14.93	15.64	16.04	17.54
	8H	17.75	18.13	18.86	19.23	20.74	14.65	15.02	15.76	16.13	17.64
	12H	17.80	18.14	18.93	19.26	20.77	14.66	15.00	15.79	16.12	17.64
8H	4H	17.19	17.57	18.30	18.67	20.19	14.39	14.77	15.51	15.88	17.39
	6H	17.74	18.05	18.87	19.20	20.70	14.92	15.23	16.06	16.38	17.89
	8H	17.94	18.21	19.07	19.34	20.86	15.11	15.38	16.25	16.51	18.04
	12H	18.03	18.27	19.18	19.40	20.96	15.17	15.41	16.31	16.53	18.10
12H	4H	17.14	17.48	18.27	18.60	20.12	14.40	14.74	15.53	15.86	17.38
	6H	17.72	17.99	18.86	19.12	20.65	14.98	15.26	16.12	16.38	17.91
	8H	17.93	18.17	19.07	19.29	20.86	15.19	15.42	16.33	16.55	18.12