

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: P854057

Luminaire Tested: SQ2-PH1-125U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854057
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-125U-075D-940-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

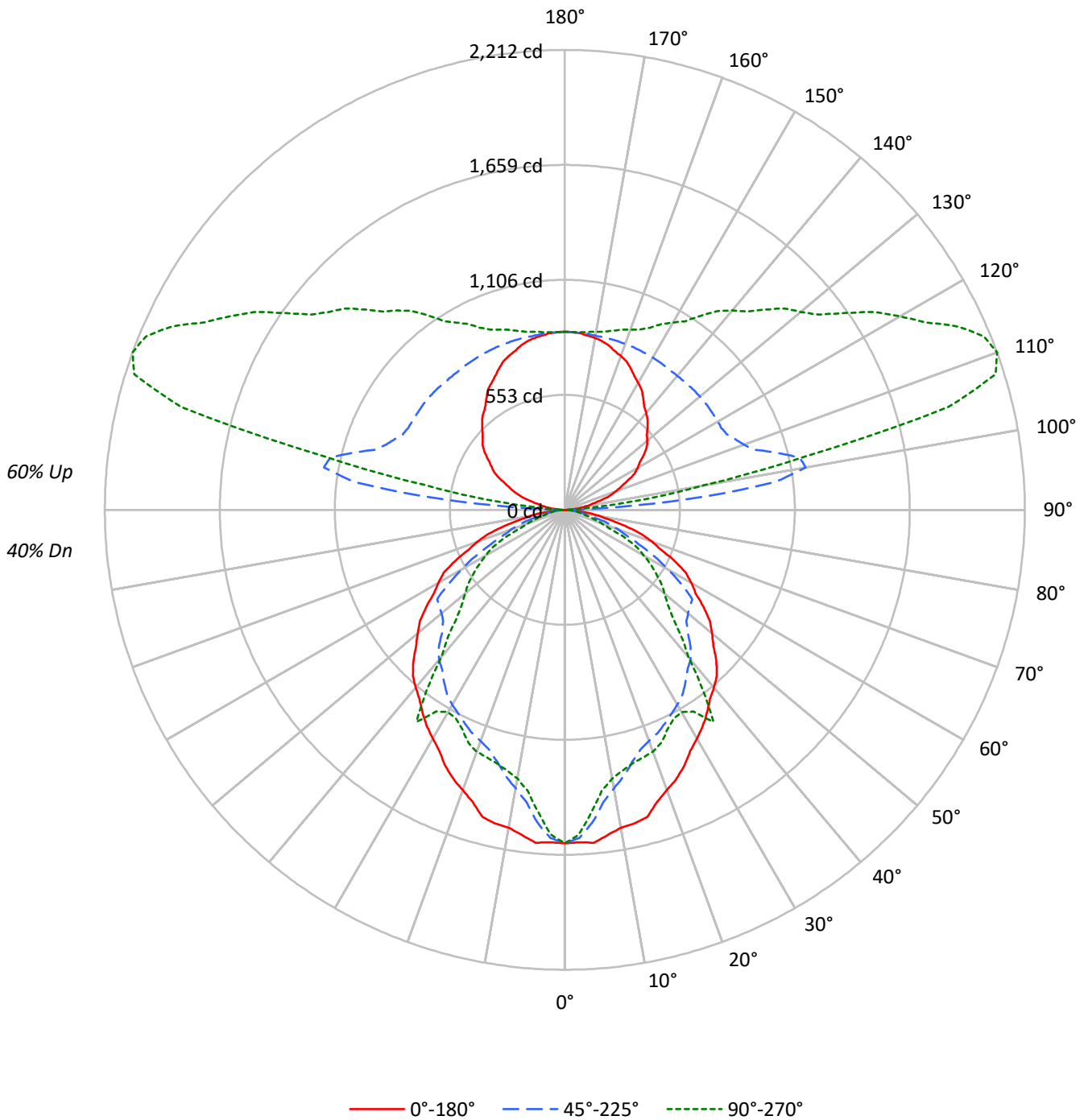
Lumens per Lamp: N/A
Luminaire Lumens: 8829.3 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.6
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: P854057

CATALOG NUMBER: SQ2-PH1-125U-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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	43	37	35	34	29
3	80	70	63	58	72	64	58	53	53	49	45	43	39	37	33	31	29	25
4	73	62	55	49	66	57	50	45	47	42	38	38	34	32	29	27	25	21
5	67	55	48	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	37	32	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25893	25893	25893
5°	26042	24485	23668
10°	25443	22291	21515
15°	25558	20966	21093
20°	24646	20319	21263
25°	24195	20225	20769
30°	23670	20171	20939
35°	23489	19941	24541
40°	23509	19812	19458
45°	23519	19059	16760
50°	23189	19432	15714
55°	22894	21090	15077
60°	22666	18477	14141
65°	22269	14984	12302
70°	21036	12751	8790
75°	18752	9613	6662
80°	15323	6239	6239
85°	9615	5650	4242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23519 cd/sqm



TEST NUMBER: P854057

CATALOG NUMBER: SQ2-PH1-125U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	1.6
10°-20°	371.2	4.2
20°-30°	544.3	6.2
30°-40°	659.1	7.5
40°-50°	648.2	7.3
50°-60°	564.2	6.4
60°-70°	392.3	4.4
70°-80°	186.0	2.1
80°-90°	41.9	0.5
90°-100°	327.4	3.7
100°-110°	1066.0	12.1
110°-120°	1054.5	11.9
120°-130°	861.7	9.8
130°-140°	704.3	8.0
140°-150°	548.6	6.2
150°-160°	395.4	4.5
160°-170°	241.7	2.7
170°-180°	81.5	0.9
0°-30°	1056.6	12.0
0°-40°	1715.7	19.4
0°-60°	2928.1	33.2
0°-90°	3548.3	40.2
90°-120°	2447.9	27.7
90°-150°	4562.4	51.7
90°-180°	5281.0	59.8
0°-180°	8829.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1607	1605	1511	1463	1460	151
15°	1529	1362	1254	1246	1262	426
25°	1358	1155	1135	1170	1166	625
35°	1192	964	1012	1099	1245	746
45°	1030	763	835	864	734	792
55°	813	594	749	540	536	727
65°	583	408	392	322	322	573
75°	301	208	154	110	107	319
85°	52	34	30	24	23	70
90°	0	3	7	6	6	4
95°	44	135	600	214	132	51
105°	181	261	1056	2017	1910	193
115°	335	400	860	1773	2086	331
125°	465	519	849	1400	1650	414
135°	562	621	844	1208	1362	434
145°	657	705	842	1040	1139	411
155°	750	774	848	932	966	345
165°	818	825	850	881	892	230
175°	853	853	853	859	857	81
180°	856	856	856	856	856	



TEST NUMBER: P854057

CATALOG NUMBER: SQ2-PH1-125U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1603.7	1603.7	1603.7	1603.7	1603.7
2.5°	1600.1	1616.8	1579.3	1564.6	1562.2
5°	1606.8	1605.3	1510.7	1463.3	1460.3
7.5°	1577.5	1531.2	1418.2	1365.9	1363.6
10°	1551.9	1481.7	1359.6	1312.3	1312.3
12.5°	1545.7	1435.0	1312.0	1277.0	1284.2
15°	1529.0	1361.9	1254.3	1245.5	1261.9
17.5°	1473.4	1293.5	1209.4	1229.4	1248.5
20°	1434.4	1256.8	1182.6	1219.6	1237.5
22.5°	1401.4	1221.5	1163.1	1203.6	1213.1
25°	1358.1	1155.1	1135.3	1170.3	1165.8
27.5°	1306.2	1094.3	1107.5	1128.9	1131.6
30°	1269.6	1057.7	1081.9	1103.7	1123.1
32.5°	1234.2	1015.1	1053.8	1105.5	1149.9
35°	1191.7	963.5	1011.7	1098.9	1245.1
37.5°	1147.2	902.5	969.3	1042.6	1089.2
40°	1115.4	858.8	940.0	1030.6	923.2
42.5°	1081.3	824.6	896.0	1013.0	831.6
45°	1030.0	762.9	834.7	863.8	734.0
47.5°	969.6	715.0	793.2	720.3	669.6
50°	923.2	683.0	773.6	658.4	625.6
52.5°	878.0	649.7	760.2	607.4	585.3
55°	813.3	594.0	749.2	540.1	535.6
57.5°	744.6	537.3	662.6	481.4	489.2
60°	701.9	500.5	572.2	446.9	437.9
62.5°	656.8	464.9	488.0	402.9	394.0
65°	582.9	408.3	392.2	322.0	322.0
67.5°	501.7	349.5	317.7	263.5	227.7
70°	445.6	311.3	270.1	210.0	186.2
72.5°	385.8	270.6	221.3	172.1	144.7
75°	300.6	208.1	154.1	109.8	106.8
77.5°	217.3	149.9	103.8	81.5	81.8
80°	164.8	114.1	67.1	65.6	67.1
82.5°	116.0	78.4	50.0	52.2	52.5
85°	51.9	34.0	30.5	24.4	22.9
87.5°	11.0	10.4	7.6	7.4	7.4
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.5	174.1	57.4	44.2
95°	44.2	134.8	600.1	214.0	131.6
97.5°	83.2	175.4	1018.5	620.3	378.6
100°	108.4	199.0	1176.0	1048.7	680.1
102.5°	137.1	224.4	1156.6	1551.4	1179.6
105°	181.1	261.4	1056.0	2016.9	1909.8
107.5°	228.7	304.2	960.4	2057.3	2170.7
110°	263.2	332.2	914.9	2007.1	2212.0



TEST NUMBER: P854057

CATALOG NUMBER: SQ2-PH1-125U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	291.8	360.0	886.3	1916.7	2180.8
115°	334.8	399.7	860.2	1772.7	2085.6
117.5°	379.0	437.5	850.1	1640.9	1952.4
120°	404.3	461.9	847.5	1559.8	1861.4
122.5°	428.7	485.5	848.4	1489.4	1770.4
125°	465.3	518.9	848.6	1399.6	1649.8
127.5°	496.7	551.5	848.4	1332.4	1540.9
130°	516.9	572.5	847.5	1293.9	1480.3
132.5°	534.6	592.7	846.7	1258.3	1433.1
135°	562.2	620.9	844.4	1207.9	1362.4
137.5°	589.2	648.3	842.0	1156.8	1293.9
140°	608.5	665.2	841.2	1122.1	1251.8
142.5°	627.1	681.2	841.2	1088.9	1204.6
145°	657.0	705.3	842.3	1040.3	1139.2
147.5°	686.0	728.0	843.7	999.0	1075.4
150°	705.4	742.5	845.4	974.3	1039.1
152.5°	724.8	755.2	846.3	955.5	1007.1
155°	749.6	774.3	847.5	931.5	966.5
157.5°	773.2	790.9	848.8	913.8	938.3
160°	787.5	801.9	849.6	902.7	922.3
162.5°	800.1	811.3	849.6	893.3	908.0
165°	818.0	825.3	849.6	881.4	891.7
167.5°	830.7	835.2	849.8	872.5	877.8
170°	839.1	841.2	850.7	866.5	868.6
172.5°	845.0	846.2	852.4	863.1	862.7
175°	852.8	852.8	852.8	859.1	857.0
177.5°	855.9	855.1	854.3	858.4	855.1
180°	855.9	855.9	855.9	855.9	855.9



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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	17.65	18.43	18.69	19.47	20.87	16.32	17.10	17.36	18.14	19.55
	3H	19.67	20.36	20.72	21.41	22.84	17.35	18.04	18.40	19.10	20.52
	4H	20.40	21.05	21.46	22.11	23.54	17.56	18.22	18.62	19.27	20.70
	6H	20.88	21.48	21.95	22.54	23.98	17.70	18.30	18.77	19.36	20.81
	8H	21.00	21.57	22.07	22.65	24.09	17.73	18.30	18.81	19.38	20.82
	12H	21.04	21.59	22.12	22.66	24.12	17.73	18.27	18.80	19.34	20.80
4H	2H	18.02	18.67	19.08	19.73	21.16	16.95	17.61	18.02	18.67	20.10
	3H	20.11	20.66	21.19	21.74	23.19	18.13	18.67	19.20	19.75	21.20
	4H	20.93	21.43	22.01	22.50	23.96	18.40	18.90	19.48	19.97	21.44
	6H	21.51	21.93	22.59	23.03	24.49	18.60	19.03	19.69	20.13	21.59
	8H	21.67	22.07	22.76	23.16	24.64	18.66	19.06	19.74	20.14	21.62
	12H	21.74	22.10	22.84	23.20	24.68	18.66	19.02	19.77	20.12	21.60
8H	4H	20.94	21.34	22.02	22.42	23.90	18.61	19.01	19.70	20.10	21.57
	6H	21.58	21.91	22.70	23.04	24.52	18.87	19.20	19.99	20.34	21.81
	8H	21.81	22.10	22.93	23.21	24.70	18.98	19.27	20.10	20.38	21.87
	12H	21.92	22.17	23.04	23.28	24.81	19.02	19.27	20.14	20.38	21.91
12H	4H	20.88	21.25	21.99	22.35	23.83	18.60	18.96	19.71	20.06	21.54
	6H	21.56	21.85	22.68	22.96	24.45	18.90	19.19	20.02	20.31	21.80
	8H	21.79	22.04	22.91	23.15	24.68	19.02	19.27	20.14	20.38	21.91