

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: P855153

Luminaire Tested: SQ2-PH1-125U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855153
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-835-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

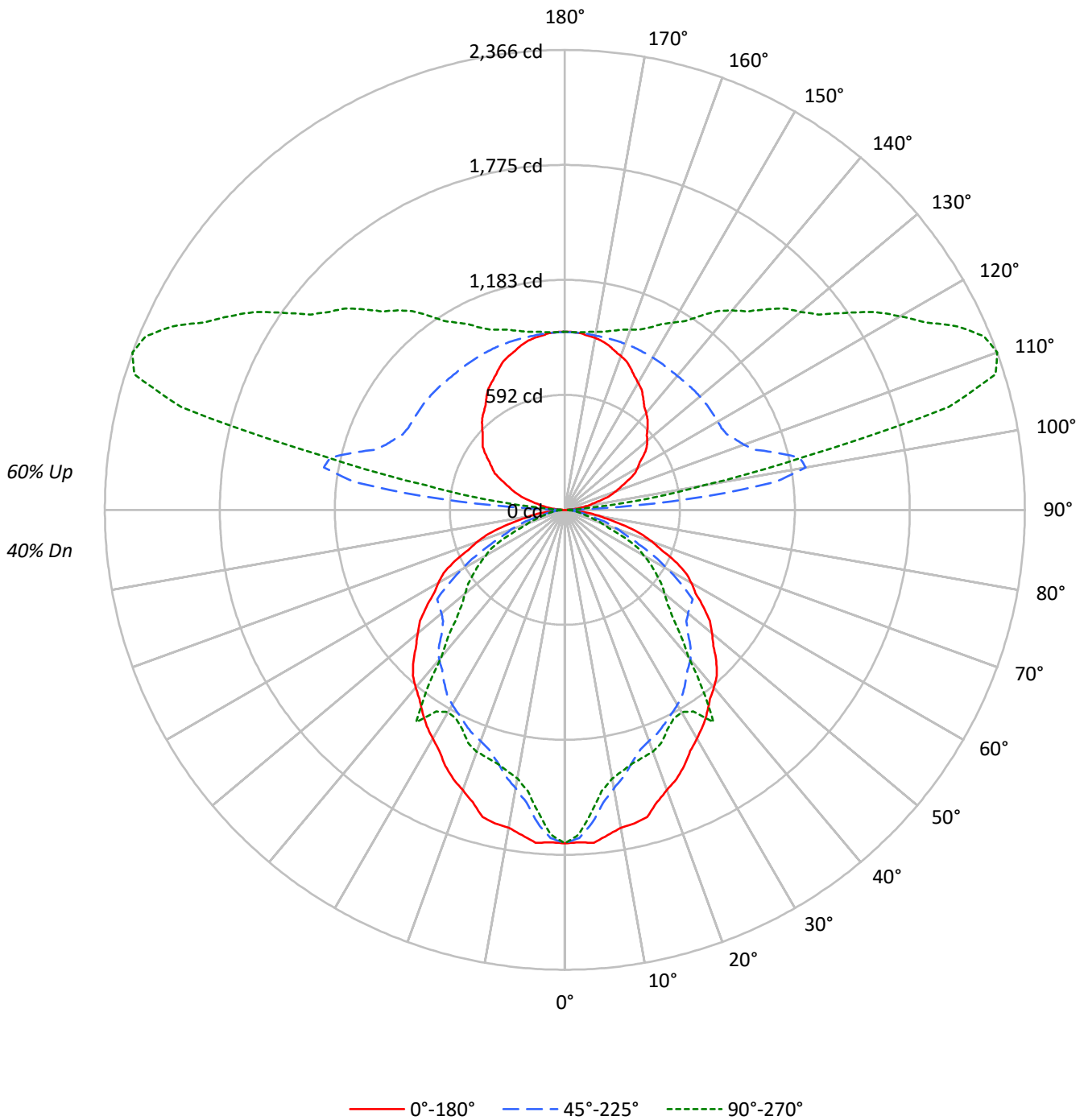
Lumens per Lamp: N/A
Luminaire Lumens: 9446.0 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

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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	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°	27703	27703	27703
5°	27861	26195	25321
10°	27220	23846	23017
15°	27343	22430	22567
20°	26366	21739	22747
25°	25883	21638	22219
30°	25322	21580	22400
35°	25131	21333	26256
40°	25151	21195	20818
45°	25160	20390	17931
50°	24810	20791	16814
55°	24493	22565	16130
60°	24251	19769	15129
65°	23828	16027	13161
70°	22504	13638	9404
75°	20062	10287	7130
80°	16392	6685	6685
85°	10282	6058	4520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25160 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	1.6
10°-20°	397.1	4.2
20°-30°	582.3	6.2
30°-40°	705.1	7.5
40°-50°	693.5	7.3
50°-60°	603.7	6.4
60°-70°	419.7	4.4
70°-80°	199.0	2.1
80°-90°	44.9	0.5
90°-100°	350.3	3.7
100°-110°	1140.4	12.1
110°-120°	1128.1	11.9
120°-130°	921.9	9.8
130°-140°	753.5	8.0
140°-150°	586.9	6.2
150°-160°	423.0	4.5
160°-170°	258.6	2.7
170°-180°	87.2	0.9
0°-30°	1130.4	12.0
0°-40°	1835.5	19.4
0°-60°	3132.6	33.2
0°-90°	3796.1	40.2
90°-120°	2618.8	27.7
90°-150°	4881.1	51.7
90°-180°	5650.0	59.8
0°-180°	9446.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1719	1717	1616	1566	1562	162
15°	1636	1457	1342	1332	1350	456
25°	1453	1236	1215	1252	1247	668
35°	1275	1031	1082	1176	1332	799
45°	1102	816	893	924	785	847
55°	870	635	802	578	573	777
65°	624	437	420	344	344	613
75°	322	223	165	118	114	341
85°	56	36	33	26	24	74
90°	0	3	8	7	7	4
95°	47	144	642	229	141	55
105°	194	280	1130	2158	2043	207
115°	358	428	920	1897	2231	355
125°	498	555	908	1497	1765	443
135°	602	664	903	1292	1458	465
145°	703	755	901	1113	1219	440
155°	802	828	907	996	1034	369
165°	875	883	909	943	954	246
175°	912	912	912	919	917	87
180°	916	916	916	916	916	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1715.8	1715.8	1715.8	1715.8	1715.8
2.5°	1711.9	1729.7	1689.7	1674.0	1671.4
5°	1719.0	1717.4	1616.2	1565.5	1562.3
7.5°	1687.7	1638.2	1517.2	1461.3	1458.8
10°	1660.3	1585.2	1454.5	1403.9	1403.9
12.5°	1653.7	1535.3	1403.6	1366.3	1374.0
15°	1635.8	1457.0	1341.9	1332.5	1350.1
17.5°	1576.4	1383.8	1293.9	1315.3	1335.7
20°	1534.5	1344.6	1265.2	1304.8	1323.9
22.5°	1499.3	1306.8	1244.3	1287.6	1297.9
25°	1452.9	1235.9	1214.6	1252.1	1247.2
27.5°	1397.4	1170.8	1184.9	1207.8	1210.7
30°	1358.2	1131.6	1157.5	1180.8	1201.5
32.5°	1320.4	1086.1	1127.4	1182.7	1230.2
35°	1275.0	1030.7	1082.3	1175.7	1332.1
37.5°	1227.3	965.5	1036.9	1115.5	1165.3
40°	1193.3	918.8	1005.6	1102.6	987.7
42.5°	1156.8	882.2	958.6	1083.8	889.7
45°	1101.9	816.3	893.0	924.1	785.3
47.5°	1037.3	765.0	848.6	770.7	716.3
50°	987.7	730.7	827.7	704.5	669.4
52.5°	939.4	695.2	813.3	649.8	626.3
55°	870.1	635.4	801.6	577.8	573.0
57.5°	796.7	574.8	708.9	515.1	523.4
60°	751.0	535.5	612.2	478.1	468.5
62.5°	702.7	497.4	522.0	431.1	421.5
65°	623.7	436.8	419.5	344.5	344.5
67.5°	536.7	373.9	339.8	281.9	243.5
70°	476.7	333.0	288.9	224.7	199.2
72.5°	412.7	289.5	236.7	184.1	154.8
75°	321.6	222.6	164.9	117.5	114.3
77.5°	232.4	160.4	111.0	87.1	87.5
80°	176.3	122.0	71.9	70.3	71.9
82.5°	124.0	83.9	53.5	55.8	56.1
85°	55.5	36.3	32.7	26.0	24.4
87.5°	11.8	11.1	8.1	7.9	7.9
90°	0.0	3.3	7.9	6.8	6.8
92.5°	16.2	58.3	186.3	61.4	47.3
95°	47.3	144.2	642.0	228.9	140.8
97.5°	88.9	187.6	1089.7	663.6	405.0
100°	116.0	213.0	1258.2	1121.9	727.7
102.5°	146.7	240.0	1237.5	1659.8	1262.0
105°	193.7	279.6	1129.7	2157.7	2043.2
107.5°	244.7	325.5	1027.4	2201.0	2322.4
110°	281.6	355.3	978.8	2147.3	2366.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	312.2	385.1	948.2	2050.6	2333.2
115°	358.2	427.5	920.3	1896.6	2231.3
117.5°	405.5	468.1	909.4	1755.4	2088.7
120°	432.5	494.2	906.7	1668.8	1991.4
122.5°	458.7	519.4	907.6	1593.5	1894.1
125°	497.8	555.1	907.8	1497.4	1765.1
127.5°	531.4	590.0	907.6	1425.4	1648.6
130°	553.0	612.6	906.7	1384.4	1583.7
132.5°	571.9	634.1	905.8	1346.2	1533.2
135°	601.5	664.3	903.4	1292.4	1457.6
137.5°	630.3	693.5	900.9	1237.6	1384.4
140°	651.0	711.6	900.0	1200.5	1339.2
142.5°	670.9	728.8	900.0	1165.0	1288.9
145°	702.9	754.6	901.1	1113.0	1218.7
147.5°	734.0	778.9	902.7	1068.7	1150.4
150°	754.7	794.3	904.4	1042.4	1111.7
152.5°	775.4	808.0	905.3	1022.2	1077.5
155°	802.0	828.4	906.7	996.5	1034.0
157.5°	827.2	846.1	908.0	977.6	1003.8
160°	842.5	857.9	909.0	965.8	986.7
162.5°	856.0	868.0	909.0	955.8	971.4
165°	875.2	882.9	909.0	943.0	954.0
167.5°	888.7	893.6	909.2	933.4	939.2
170°	897.7	899.9	910.1	927.1	929.2
172.5°	904.1	905.3	911.9	923.4	923.0
175°	912.3	912.3	912.3	919.0	916.9
177.5°	915.7	914.8	913.9	918.3	914.8
180°	915.7	915.7	915.7	915.7	915.7



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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	17.89	18.66	18.92	19.70	21.11	16.56	17.33	17.60	18.38	19.78
	3H	19.90	20.60	20.95	21.65	23.07	17.59	18.28	18.63	19.33	20.76
	4H	20.63	21.29	21.69	22.34	23.77	17.80	18.45	18.86	19.51	20.94
	6H	21.11	21.72	22.18	22.77	24.22	17.94	18.54	19.01	19.60	21.04
	8H	21.23	21.81	22.31	22.88	24.32	17.97	18.54	19.04	19.61	21.05
	12H	21.28	21.82	22.36	22.89	24.35	17.96	18.51	19.04	19.57	21.04
4H	2H	18.25	18.91	19.32	19.96	21.39	17.19	17.85	18.26	18.90	20.33
	3H	20.35	20.89	21.42	21.98	23.42	18.36	18.91	19.44	19.99	21.43
	4H	21.16	21.66	22.24	22.73	24.20	18.63	19.13	19.71	20.21	21.67
	6H	21.74	22.17	22.83	23.26	24.72	18.84	19.26	19.93	20.36	21.82
	8H	21.91	22.31	23.00	23.40	24.87	18.89	19.29	19.98	20.38	21.86
	12H	21.97	22.33	23.08	23.43	24.92	18.89	19.26	20.00	20.36	21.84
8H	4H	21.17	21.57	22.26	22.66	24.13	18.84	19.24	19.93	20.33	21.81
	6H	21.82	22.15	22.93	23.28	24.75	19.11	19.44	20.22	20.57	22.04
	8H	22.04	22.33	23.16	23.44	24.94	19.21	19.50	20.33	20.61	22.11
	12H	22.15	22.41	23.27	23.51	25.05	19.25	19.51	20.37	20.61	22.15
12H	4H	21.12	21.48	22.22	22.58	24.06	18.83	19.20	19.94	20.30	21.78
	6H	21.79	22.08	22.91	23.19	24.69	19.14	19.43	20.26	20.54	22.03
	8H	22.02	22.27	23.14	23.38	24.91	19.25	19.51	20.37	20.61	22.14