

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P834200

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1STD-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834200
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-1STD-30-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

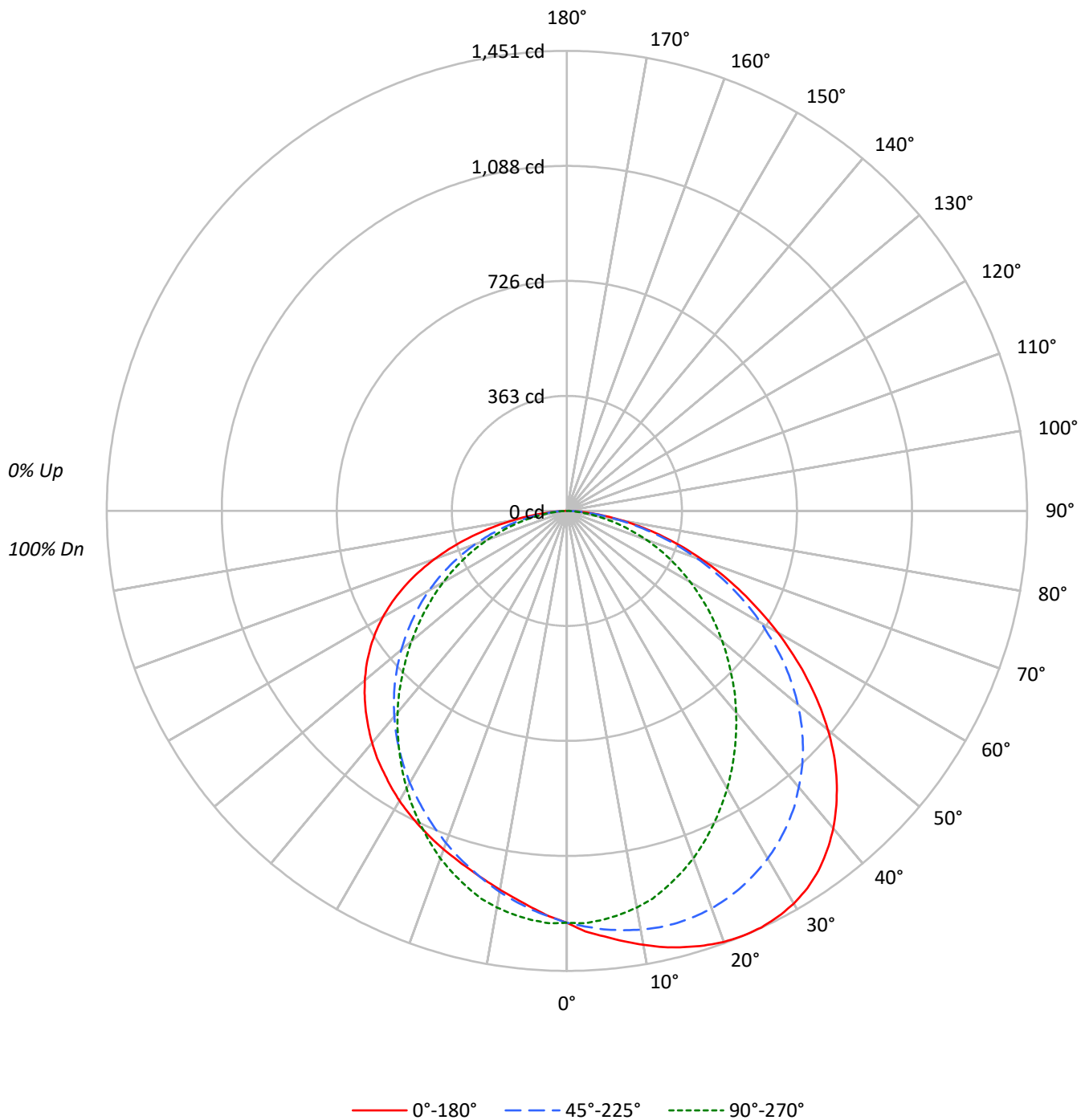
Lumens per Lamp: N/A
Luminaire Lumens: 3820.8 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: 28.75 FT

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CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1STD-30-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3495	3495	3495
5°	3639	3497	3394
10°	3798	3471	3315
15°	3969	3415	3267
20°	4142	3340	3254
25°	4305	3243	3259
30°	4445	3141	3280
35°	4547	3029	3307
40°	4593	2917	3356
45°	4580	2794	3411
50°	4499	2677	3481
55°	4345	2554	3554
60°	4133	2422	3608
65°	3882	2274	3603
70°	3612	2098	3496
75°	3279	1842	3223
80°	2816	1514	2720
85°	2149	1034	1868

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	3.2
10°-20°	355.8	9.3
20°-30°	545.0	14.3
30°-40°	665.1	17.4
40°-50°	695.6	18.2
50°-60°	629.5	16.5
60°-70°	476.8	12.5
70°-80°	265.7	7.0
80°-90°	64.1	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1024.0	26.8
0°-40°	1689.1	44.2
0°-60°	3014.2	78.9
0°-90°	3820.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3820.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1299	1299	1299	1299	1299	
5°	1347	1325	1295	1263	1256	130
15°	1425	1346	1226	1169	1173	404
25°	1450	1307	1092	1054	1098	669
35°	1384	1211	922	921	1007	864
45°	1204	1053	734	767	896	926
55°	926	836	544	592	758	826
65°	610	573	357	406	566	605
75°	315	298	177	212	310	335
85°	70	61	34	45	60	84
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9
2.5°	1327.6	1321.3	1316.2	1318.2	1319.3	1315.4	1312.0	1312.5	1309.1	1315.7	1300.3
5°	1347.2	1341.5	1335.5	1337.8	1335.5	1329.6	1324.7	1323.3	1314.2	1317.9	1302.3
7.5°	1369.0	1362.8	1354.0	1356.5	1351.7	1340.6	1334.4	1330.7	1316.8	1317.1	1299.8
10°	1390.0	1384.6	1372.7	1374.4	1365.6	1350.9	1340.9	1335.8	1316.2	1313.4	1295.5
12.5°	1409.6	1402.3	1389.5	1390.3	1377.5	1358.0	1345.2	1337.8	1312.2	1303.7	1286.1
15°	1424.7	1417.6	1402.3	1402.0	1385.5	1359.9	1345.5	1335.2	1302.9	1289.5	1271.1
17.5°	1437.5	1430.9	1411.9	1411.3	1391.5	1359.1	1341.8	1329.0	1289.3	1272.8	1252.3
20°	1446.5	1440.0	1418.7	1416.7	1392.9	1354.8	1334.1	1317.9	1271.4	1251.8	1229.1
22.5°	1450.8	1444.3	1420.1	1417.3	1389.5	1346.3	1323.0	1304.0	1250.9	1225.4	1201.8
25°	1449.9	1443.7	1416.4	1413.6	1382.9	1333.5	1307.4	1285.6	1225.1	1195.0	1171.7
27.5°	1442.8	1438.0	1409.3	1405.7	1371.0	1316.2	1288.4	1264.3	1196.4	1162.9	1137.6
30°	1430.6	1427.0	1396.6	1393.2	1356.3	1297.2	1266.3	1238.4	1165.5	1127.7	1102.2
32.5°	1411.1	1407.6	1377.0	1373.9	1336.4	1272.8	1240.4	1211.7	1131.7	1089.9	1064.4
35°	1384.1	1382.1	1352.3	1348.9	1310.8	1245.0	1210.6	1179.1	1096.5	1049.3	1024.9
37.5°	1348.6	1348.6	1319.9	1316.2	1279.0	1210.9	1177.1	1143.6	1056.7	1006.8	982.6
40°	1307.4	1311.1	1281.9	1278.2	1242.1	1174.3	1137.4	1102.2	1013.9	961.9	938.3
42.5°	1258.0	1261.4	1237.0	1233.6	1199.8	1132.0	1097.6	1059.3	969.0	916.2	891.8
45°	1203.5	1208.1	1186.2	1183.6	1152.1	1085.7	1052.8	1013.9	922.2	868.5	844.6
47.5°	1142.8	1148.7	1129.7	1128.3	1099.0	1038.3	1003.9	964.5	873.0	818.8	796.4
50°	1074.6	1083.1	1067.5	1067.5	1041.4	980.9	951.1	911.6	821.9	767.7	745.6
52.5°	1001.6	1012.4	1000.8	1001.1	979.8	925.6	894.6	856.0	768.6	715.2	694.7
55°	926.1	936.6	929.2	930.4	913.6	864.2	836.1	797.8	714.0	662.1	642.8
57.5°	847.2	858.6	853.7	856.0	844.4	800.1	770.8	737.3	657.8	606.4	590.0
60°	768.0	778.8	776.2	779.3	772.0	733.6	706.9	672.3	601.3	551.9	537.4
62.5°	687.9	697.9	697.3	700.7	696.7	664.9	641.1	611.6	542.8	497.4	484.1
65°	609.6	618.1	617.5	621.2	620.4	594.8	573.2	546.3	484.4	442.6	431.0
67.5°	533.5	540.6	538.6	542.8	544.0	523.5	504.8	480.7	428.7	388.1	378.2
70°	459.1	463.9	461.4	464.2	466.8	451.4	435.5	414.2	369.4	333.6	325.4
72.5°	386.1	389.5	385.6	388.4	390.7	379.6	366.5	348.1	310.9	279.9	273.1
75°	315.4	320.3	312.0	314.9	316.6	305.5	297.8	282.8	250.7	226.8	222.3
77.5°	247.0	249.8	245.3	244.2	245.3	237.4	231.4	219.7	195.6	176.0	173.2
80°	181.7	183.4	178.9	177.7	178.6	172.9	168.4	159.8	142.8	128.0	126.9
82.5°	121.8	122.7	118.7	117.5	118.1	116.4	111.0	105.0	97.1	84.6	84.3
85°	69.6	69.6	66.7	65.6	66.2	63.3	61.3	58.2	55.1	46.6	47.1
87.5°	25.6	25.6	24.1	23.8	26.7	23.6	22.7	21.3	22.1	17.6	18.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9	1298.9
2.5°	1304.6	1301.7	1299.2	1290.4	1294.1	1285.0	1284.4	1281.0	1278.5	1273.6	1279.9
5°	1300.3	1294.6	1287.3	1276.8	1279.9	1269.1	1266.8	1262.8	1259.4	1253.2	1258.0
7.5°	1293.5	1284.1	1272.5	1259.2	1263.4	1250.1	1246.7	1242.4	1239.6	1232.2	1236.4
10°	1283.6	1270.2	1256.6	1240.4	1243.5	1229.1	1224.8	1220.3	1217.7	1211.2	1215.4
12.5°	1268.2	1252.1	1233.6	1216.0	1219.4	1205.8	1200.1	1195.3	1194.4	1189.0	1194.1
15°	1248.4	1225.9	1206.9	1188.2	1192.2	1176.3	1173.7	1168.9	1170.3	1166.6	1172.8
17.5°	1223.1	1197.3	1176.5	1156.4	1160.4	1147.0	1145.0	1142.8	1144.2	1143.6	1150.4
20°	1194.7	1166.3	1142.5	1122.6	1124.9	1114.4	1115.2	1114.6	1117.5	1120.6	1130.0
22.5°	1162.6	1130.5	1105.6	1085.1	1088.5	1079.4	1083.4	1084.6	1089.4	1096.5	1108.4
25°	1126.6	1092.2	1066.1	1046.8	1049.9	1044.0	1050.8	1053.6	1061.3	1073.2	1085.4
27.5°	1088.8	1052.5	1024.6	1006.2	1012.2	1006.2	1016.4	1022.1	1033.7	1046.8	1061.8
30°	1048.8	1011.0	982.3	965.9	971.6	966.2	982.6	990.3	1001.9	1019.8	1037.7
32.5°	1006.8	967.0	938.9	926.1	930.1	929.2	947.7	956.2	971.8	992.3	1011.3
35°	963.6	922.2	893.8	883.0	887.8	888.9	911.1	921.0	938.1	962.8	983.2
37.5°	919.0	876.7	848.9	840.1	844.4	848.6	874.5	884.4	903.7	930.7	953.1
40°	872.8	830.4	803.2	796.1	800.4	804.9	833.0	846.6	867.6	896.9	921.3
42.5°	825.9	783.6	757.2	752.1	756.3	765.1	795.0	807.7	829.9	862.2	889.2
45°	778.2	734.2	711.2	707.2	711.8	722.0	751.2	766.6	790.1	825.6	854.6
47.5°	729.9	687.1	665.2	662.7	667.2	678.6	710.9	724.8	749.8	787.6	818.8
50°	681.1	639.4	618.4	617.5	621.8	634.0	664.9	681.4	707.2	749.5	781.6
52.5°	631.7	591.7	572.7	572.7	576.6	589.1	620.4	637.4	664.1	708.6	744.1
55°	582.3	544.3	526.1	527.5	533.2	544.0	574.4	592.2	619.2	665.5	703.0
57.5°	532.9	496.8	480.4	482.4	487.8	498.6	528.4	548.5	572.9	620.9	659.2
60°	484.1	450.0	435.5	437.8	442.6	453.4	484.4	501.7	526.1	574.9	613.3
62.5°	434.7	403.7	390.1	392.9	397.2	408.0	437.2	454.0	478.1	526.1	564.7
65°	385.8	357.2	345.5	348.4	352.3	362.3	389.8	406.0	429.0	475.8	512.7
67.5°	337.6	311.5	301.8	304.6	307.8	317.1	339.8	357.4	379.0	423.6	458.5
70°	289.9	266.6	258.1	260.9	263.8	272.3	292.1	308.3	328.2	369.1	401.5
72.5°	242.7	220.0	215.8	218.3	220.6	228.0	247.0	259.8	277.1	313.4	341.3
75°	196.8	177.2	174.3	176.9	178.9	184.5	200.4	211.5	226.0	257.5	280.2
77.5°	152.5	136.0	134.9	136.8	138.8	142.8	155.3	166.9	178.3	201.6	221.7
80°	111.0	97.7	97.7	99.7	99.1	103.9	112.7	122.1	130.3	147.1	161.8
82.5°	73.2	62.7	64.2	65.6	66.4	68.4	73.8	80.9	86.0	96.2	105.9
85°	40.6	33.5	34.9	36.1	35.5	37.8	40.6	44.9	47.4	52.2	57.4
87.5°	15.0	12.5	12.8	13.6	14.2	15.3	15.3	17.9	18.2	18.7	19.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	1298.9	1298.9	1298.9
2.5°	1268.0	1274.8	1279.9
5°	1246.1	1251.8	1256.3
7.5°	1224.8	1229.9	1233.9
10°	1204.6	1210.3	1213.2
12.5°	1183.9	1190.5	1192.7
15°	1163.5	1170.0	1172.8
17.5°	1142.5	1151.0	1154.1
20°	1122.9	1133.7	1136.2
22.5°	1103.0	1114.1	1117.2
25°	1081.4	1094.5	1097.6
27.5°	1058.4	1074.0	1077.2
30°	1035.4	1052.5	1055.6
32.5°	1010.7	1029.2	1032.0
35°	984.9	1003.4	1006.8
37.5°	956.2	976.4	983.2
40°	926.4	948.3	955.4
42.5°	895.2	919.0	926.4
45°	861.7	887.8	896.3
47.5°	827.9	857.4	864.8
50°	791.3	822.8	831.6
52.5°	752.9	787.3	796.1
55°	713.2	747.8	757.5
57.5°	670.0	705.8	716.0
60°	624.9	660.7	670.3
62.5°	578.6	611.0	620.4
65°	526.9	557.3	565.8
67.5°	472.1	500.0	507.1
70°	413.9	438.1	444.3
72.5°	353.2	369.9	378.2
75°	290.4	303.8	310.0
77.5°	227.4	236.8	241.9
80°	165.8	171.2	175.5
82.5°	108.5	110.7	113.8
85°	58.5	58.5	60.5
87.5°	19.9	19.0	19.9
90°	0.0	0.0	0.0

(END OF REPORT)