

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: P556813

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-81-96-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P556813
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1STD-40-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

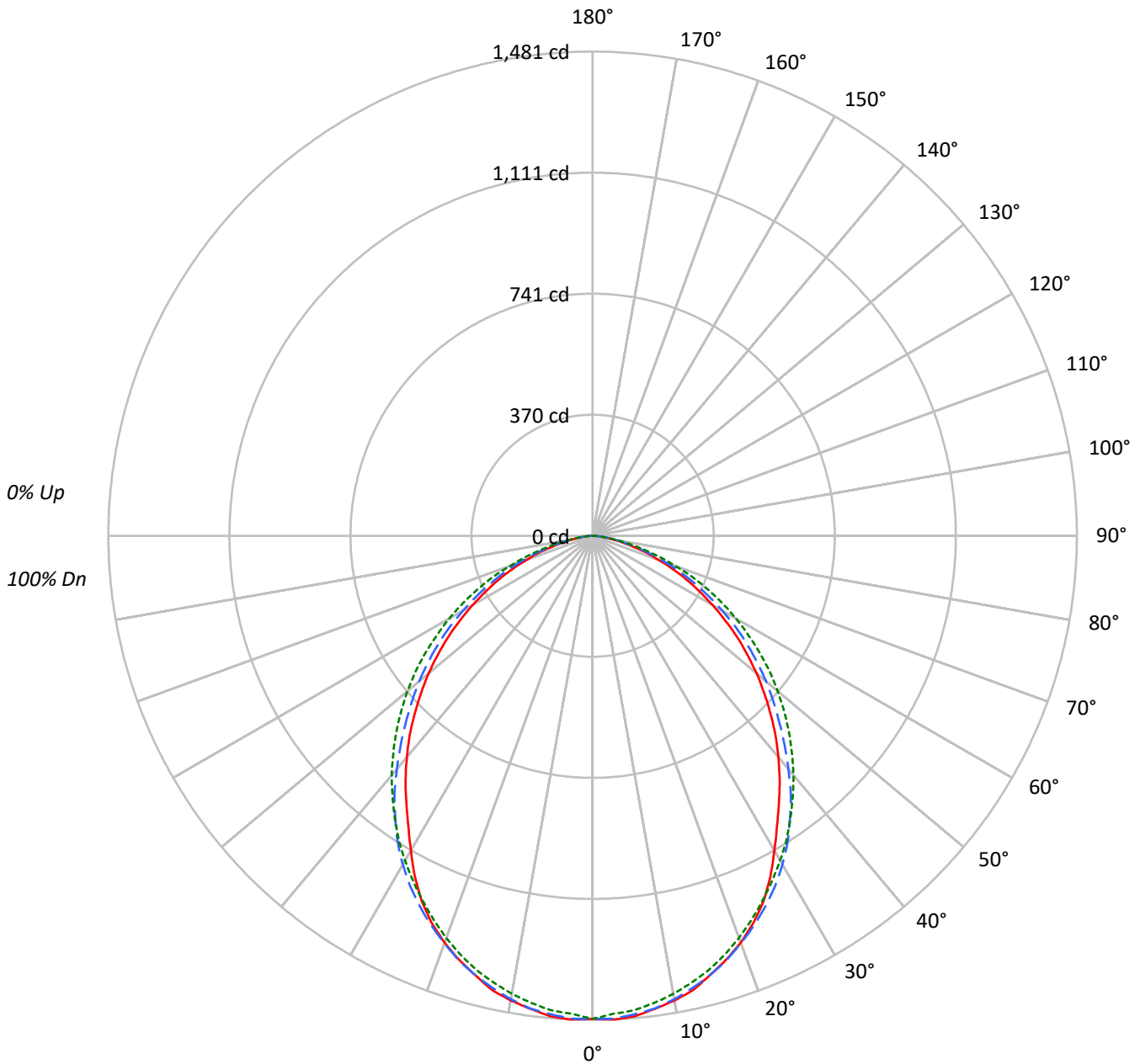
Lumens per Lamp: N/A
Luminaire Lumens: 3416.0 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3975	3975	3975
5°	3986	3969	3935
10°	3944	3933	3888
15°	3874	3874	3830
20°	3792	3797	3748
25°	3667	3712	3653
30°	3453	3608	3564
35°	3263	3459	3464
40°	3104	3271	3358
45°	2927	3073	3231
50°	2740	2896	3093
55°	2527	2695	2926
60°	2275	2459	2722
65°	2010	2187	2476
70°	1674	1862	2103
75°	1316	1487	1646
80°	941	1046	1161
85°	614	614	577



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.1	4.1
10°-20°	390.8	11.4
20°-30°	571.0	16.7
30°-40°	648.2	19.0
40°-50°	625.7	18.3
50°-60°	516.2	15.1
60°-70°	343.7	10.1
70°-80°	153.8	4.5
80°-90°	27.5	0.8
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°	1100.9	32.2
0°-40°	1749.0	51.2
0°-60°	2890.9	84.6
0°-90°	3416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3416.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1477	1477	1477	1477	1477	
5°	1476	1475	1469	1461	1457	140
15°	1390	1394	1390	1384	1375	392
25°	1235	1245	1250	1241	1230	566
35°	993	1007	1053	1058	1054	622
45°	769	782	808	844	849	593
55°	539	548	574	606	624	481
65°	316	324	343	368	389	313
75°	127	133	143	150	158	138
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1477.3	1477.3	1477.3	1477.3	1477.3
2.5°	1481.3	1481.9	1478.5	1469.4	1463.7
5°	1475.6	1475.1	1469.4	1461.4	1456.9
7.5°	1459.2	1460.3	1458.6	1447.3	1441.0
10°	1443.3	1443.8	1439.3	1430.2	1422.8
12.5°	1422.8	1422.3	1416.0	1411.5	1399.6
15°	1390.5	1393.9	1390.5	1384.3	1374.6
17.5°	1359.3	1359.3	1361.6	1350.8	1343.4
20°	1324.1	1325.8	1325.8	1317.3	1308.8
22.5°	1283.2	1288.3	1290.0	1281.0	1270.7
25°	1235.0	1244.6	1250.3	1241.2	1230.4
27.5°	1176.5	1191.3	1208.3	1201.5	1189.6
30°	1111.3	1132.8	1161.2	1155.5	1147.0
32.5°	1049.4	1071.0	1110.1	1107.9	1103.3
35°	993.2	1006.8	1052.8	1058.5	1054.5
37.5°	939.9	952.3	995.5	1008.5	1005.1
40°	883.7	897.3	931.3	954.6	955.8
42.5°	828.1	841.1	868.9	902.4	902.4
45°	769.0	782.1	807.6	844.5	849.1
47.5°	711.1	724.8	749.7	786.6	794.0
50°	654.4	666.9	691.8	727.6	738.9
52.5°	595.4	609.0	633.4	666.3	682.8
55°	538.6	547.7	574.4	606.1	623.7
57.5°	479.6	488.1	518.2	545.4	563.6
60°	422.8	433.6	456.9	484.7	505.7
62.5°	368.3	379.7	399.6	424.0	447.8
65°	315.6	324.1	343.4	367.8	388.8
67.5°	264.5	271.9	291.2	308.2	330.3
70°	212.8	222.5	236.7	253.1	267.3
72.5°	171.4	175.4	187.3	199.2	214.0
75°	126.6	133.4	143.0	149.8	158.3
77.5°	90.8	94.8	100.5	106.1	114.1
80°	60.7	62.4	67.5	68.7	74.9
82.5°	36.9	38.0	39.2	39.7	42.0
85°	19.9	19.9	19.9	18.7	18.7
87.5°	11.4	11.4	9.6	7.9	5.7
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)