

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: P556144

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-84-EDD-90**

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: P556144
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-LD4-1HI-30-UNV-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

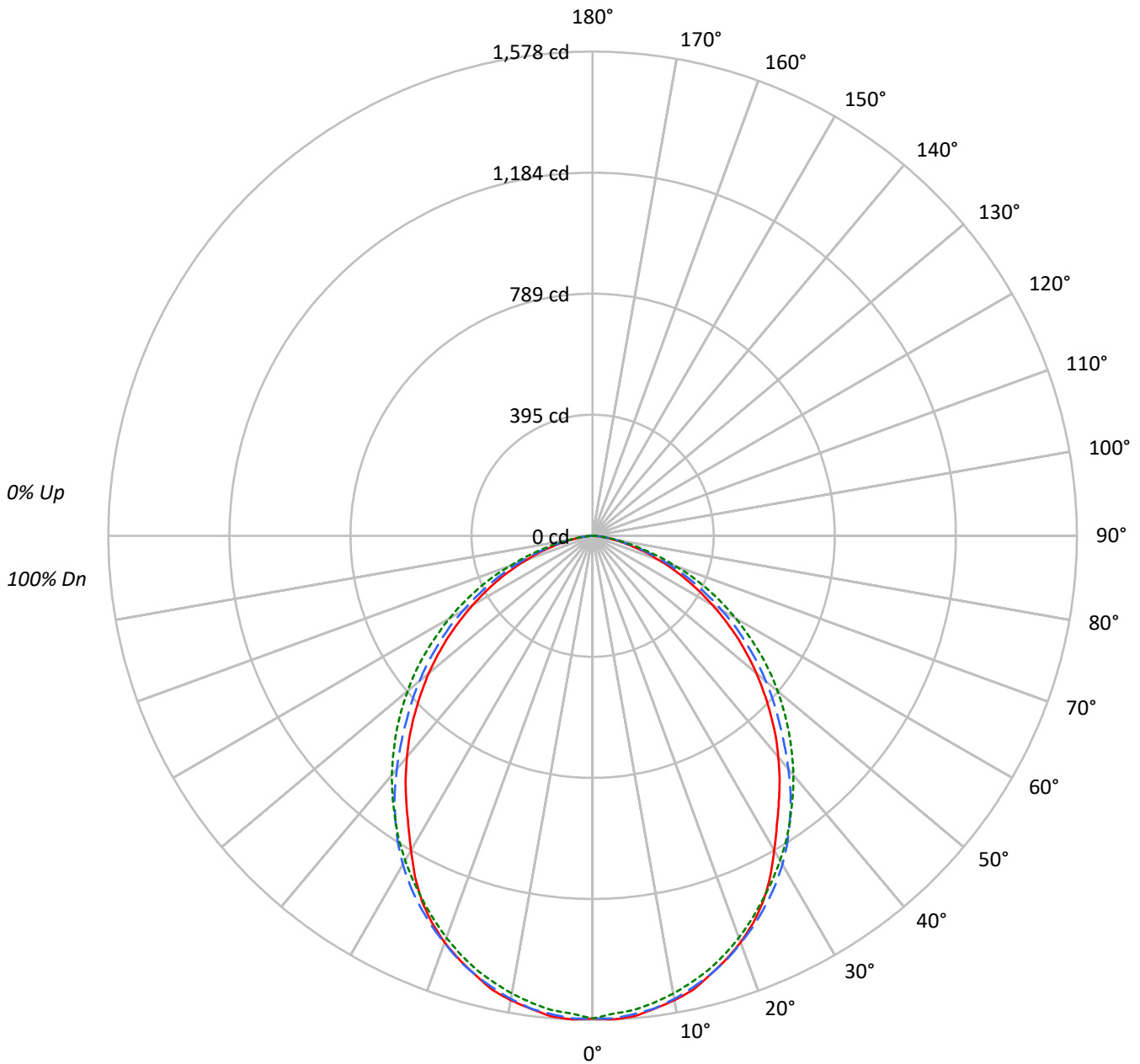
Lumens per Lamp: N/A
Luminaire Lumens: 3638.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
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: 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°	4234	4234	4234
5°	4245	4227	4191
10°	4200	4188	4141
15°	4126	4126	4078
20°	4038	4044	3991
25°	3905	3954	3891
30°	3677	3843	3796
35°	3475	3683	3689
40°	3306	3484	3576
45°	3117	3273	3441
50°	2918	3085	3295
55°	2691	2870	3117
60°	2423	2619	2899
65°	2140	2329	2636
70°	1784	1983	2240
75°	1402	1583	1753
80°	1003	1114	1237
85°	655	655	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	4.1
10°-20°	416.2	11.4
20°-30°	608.1	16.7
30°-40°	690.3	19.0
40°-50°	666.4	18.3
50°-60°	549.7	15.1
60°-70°	366.1	10.1
70°-80°	163.8	4.5
80°-90°	29.3	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°	1172.4	32.2
0°-40°	1862.7	51.2
0°-60°	3078.8	84.6
0°-90°	3638.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3638.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1572	1571	1565	1556	1552	149
15°	1481	1484	1481	1474	1464	417
25°	1315	1326	1332	1322	1310	602
35°	1058	1072	1121	1127	1123	663
45°	819	833	860	899	904	632
55°	574	583	612	646	664	512
65°	336	345	366	392	414	333
75°	135	142	152	160	169	147
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1573.3	1573.3	1573.3	1573.3	1573.3
2.5°	1577.6	1578.2	1574.5	1564.9	1558.8
5°	1571.5	1570.9	1564.9	1556.4	1551.6
7.5°	1554.0	1555.2	1553.4	1541.3	1534.7
10°	1537.1	1537.7	1532.8	1523.2	1515.3
12.5°	1515.3	1514.7	1508.1	1503.2	1490.5
15°	1480.9	1484.5	1480.9	1474.2	1463.9
17.5°	1447.6	1447.6	1450.0	1438.6	1430.7
20°	1410.1	1412.0	1412.0	1402.9	1393.8
22.5°	1366.6	1372.1	1373.9	1364.2	1353.3
25°	1315.2	1325.5	1331.6	1321.9	1310.4
27.5°	1253.0	1268.7	1286.8	1279.6	1266.9
30°	1183.5	1206.4	1236.7	1230.6	1221.6
32.5°	1117.6	1140.6	1182.3	1179.9	1175.0
35°	1057.8	1072.3	1121.2	1127.3	1123.0
37.5°	1000.9	1014.2	1060.2	1074.1	1070.5
40°	941.1	955.6	991.9	1016.7	1017.9
42.5°	881.9	895.8	925.4	961.0	961.0
45°	819.0	832.9	860.1	899.4	904.2
47.5°	757.4	771.9	798.5	837.7	845.6
50°	696.9	710.2	736.8	774.9	787.0
52.5°	634.1	648.6	674.5	709.6	727.1
55°	573.6	583.3	611.7	645.5	664.3
57.5°	510.7	519.8	551.8	580.9	600.2
60°	450.3	461.8	486.6	516.2	538.6
62.5°	392.3	404.4	425.5	451.5	476.9
65°	336.1	345.1	365.7	391.7	414.0
67.5°	281.7	289.5	310.1	328.2	351.8
70°	226.7	236.9	252.0	269.6	284.7
72.5°	182.5	186.8	199.5	212.2	227.9
75°	134.8	142.0	152.3	159.6	168.6
77.5°	96.7	100.9	107.0	113.0	121.5
80°	64.7	66.5	71.9	73.1	79.8
82.5°	39.3	40.5	41.7	42.3	44.7
85°	21.2	21.2	21.2	19.9	19.9
87.5°	12.1	12.1	10.3	8.5	6.0
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)