

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: P556785

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-84-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: P556785
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-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

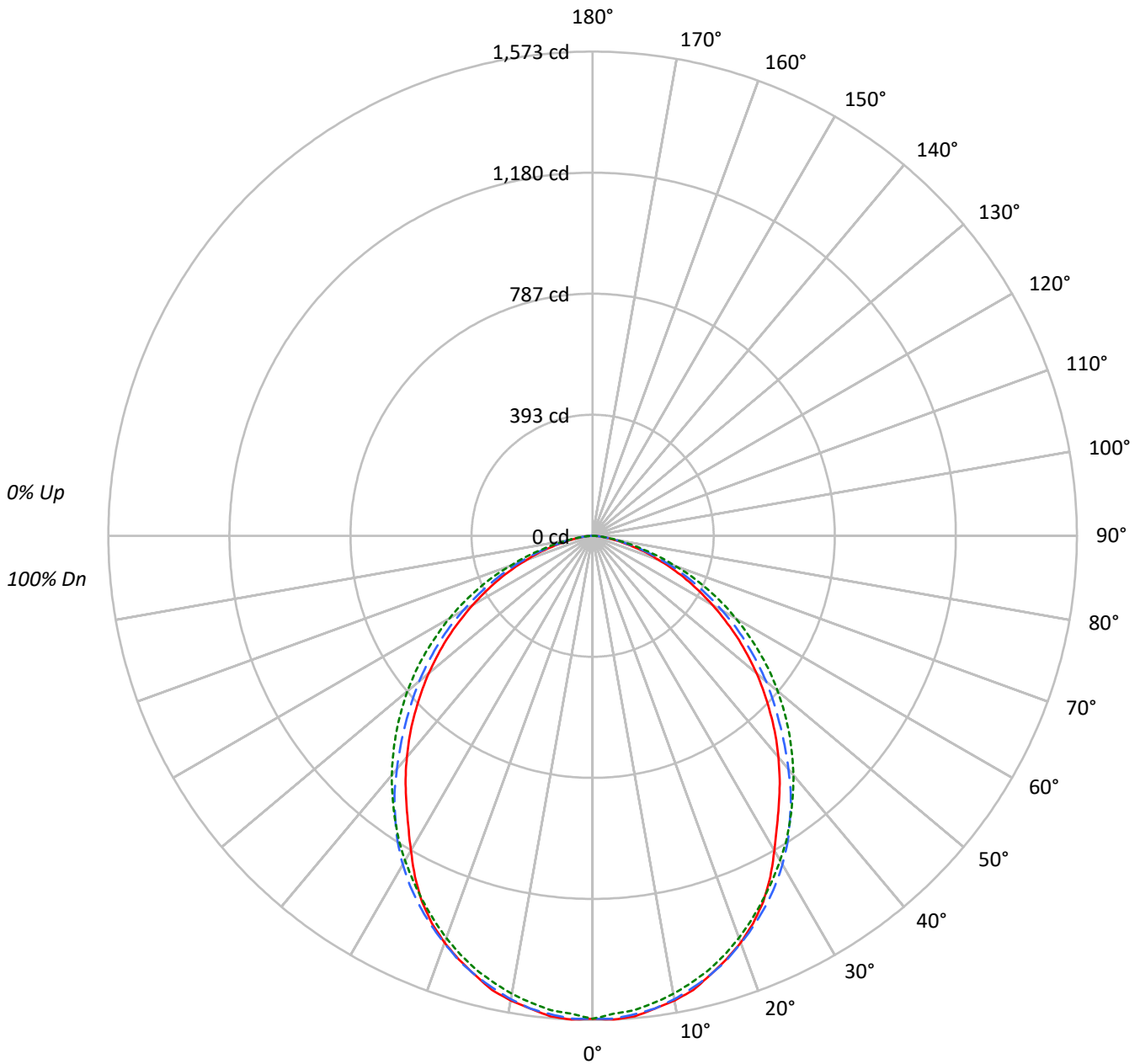
Lumens per Lamp: N/A
Luminaire Lumens: 3628.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					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	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°	4222	4222	4222
5°	4233	4216	4180
10°	4188	4177	4129
15°	4114	4114	4067
20°	4027	4032	3981
25°	3894	3943	3880
30°	3667	3832	3785
35°	3465	3673	3679
40°	3297	3475	3566
45°	3108	3264	3432
50°	2910	3076	3286
55°	2684	2862	3108
60°	2417	2611	2891
65°	2134	2322	2629
70°	1778	1978	2234
75°	1397	1579	1749
80°	1000	1111	1234
85°	651	651	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	4.1
10°-20°	415.0	11.4
20°-30°	606.5	16.7
30°-40°	688.4	19.0
40°-50°	664.5	18.3
50°-60°	548.2	15.1
60°-70°	365.1	10.1
70°-80°	163.4	4.5
80°-90°	29.2	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°	1169.2	32.2
0°-40°	1857.6	51.2
0°-60°	3070.4	84.6
0°-90°	3628.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3628.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1569	1569	1569	1569	1569	
5°	1567	1567	1561	1552	1547	148
15°	1477	1480	1477	1470	1460	416
25°	1312	1322	1328	1318	1307	601
35°	1055	1069	1118	1124	1120	661
45°	817	831	858	897	902	630
55°	572	582	610	644	662	511
65°	335	344	365	391	413	332
75°	134	142	152	159	168	147
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1569.0	1569.0	1569.0	1569.0	1569.0
2.5°	1573.2	1573.8	1570.2	1560.6	1554.5
5°	1567.2	1566.6	1560.6	1552.1	1547.3
7.5°	1549.7	1550.9	1549.1	1537.1	1530.4
10°	1532.8	1533.5	1528.6	1519.0	1511.2
12.5°	1511.2	1510.5	1503.9	1499.1	1486.4
15°	1476.8	1480.4	1476.8	1470.2	1459.9
17.5°	1443.6	1443.6	1446.1	1434.6	1426.8
20°	1406.3	1408.1	1408.1	1399.0	1390.0
22.5°	1362.9	1368.3	1370.1	1360.5	1349.6
25°	1311.6	1321.9	1327.9	1318.3	1306.8
27.5°	1249.5	1265.2	1283.3	1276.1	1263.4
30°	1180.2	1203.1	1233.3	1227.2	1218.2
32.5°	1114.5	1137.4	1179.0	1176.6	1171.8
35°	1054.9	1069.3	1118.1	1124.2	1120.0
37.5°	998.2	1011.5	1057.3	1071.1	1067.5
40°	938.5	953.0	989.1	1013.9	1015.1
42.5°	879.4	893.3	922.8	958.4	958.4
45°	816.8	830.6	857.7	896.9	901.7
47.5°	755.3	769.7	796.3	835.4	843.3
50°	695.0	708.3	734.8	772.8	784.8
52.5°	632.3	646.8	672.7	707.7	725.1
55°	572.0	581.7	610.0	643.8	662.4
57.5°	509.3	518.4	550.3	579.3	598.6
60°	449.1	460.5	485.2	514.8	537.1
62.5°	391.2	403.3	424.4	450.3	475.6
65°	335.1	344.2	364.7	390.6	412.9
67.5°	280.9	288.7	309.2	327.3	350.8
70°	226.0	236.3	251.4	268.8	283.9
72.5°	182.0	186.3	198.9	211.6	227.2
75°	134.4	141.7	151.9	159.1	168.2
77.5°	96.4	100.7	106.7	112.7	121.2
80°	64.5	66.3	71.7	72.9	79.6
82.5°	39.2	40.4	41.6	42.2	44.6
85°	21.1	21.1	21.1	19.9	19.9
87.5°	12.1	12.1	10.2	8.4	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)