

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: P556154

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-94-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: P556154
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-80-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

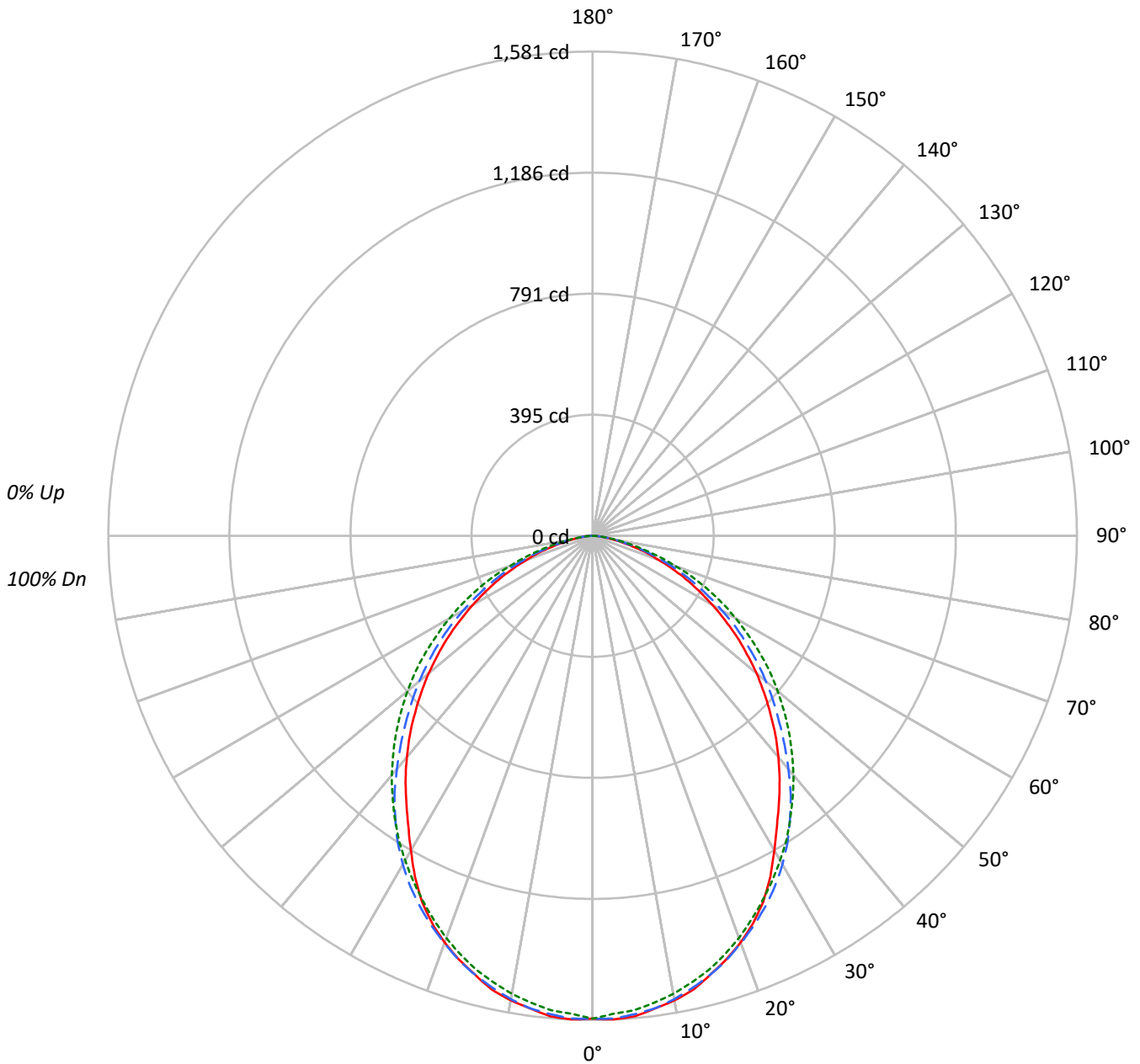
Lumens per Lamp: N/A
Luminaire Lumens: 3646.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4243	4243	4243
5°	4254	4236	4200
10°	4209	4198	4150
15°	4135	4135	4087
20°	4047	4052	4000
25°	3914	3962	3899
30°	3686	3851	3804
35°	3483	3691	3697
40°	3313	3492	3583
45°	3124	3280	3449
50°	2924	3091	3302
55°	2697	2876	3123
60°	2429	2624	2905
65°	2145	2334	2642
70°	1788	1987	2245
75°	1405	1588	1757
80°	1004	1117	1240
85°	655	655	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.5	4.1
10°-20°	417.1	11.4
20°-30°	609.5	16.7
30°-40°	691.8	19.0
40°-50°	667.8	18.3
50°-60°	550.9	15.1
60°-70°	366.9	10.1
70°-80°	164.2	4.5
80°-90°	29.4	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°	1175.0	32.2
0°-40°	1866.8	51.2
0°-60°	3085.6	84.6
0°-90°	3646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3646.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1577	1577	1577	1577	1577	
5°	1575	1574	1568	1560	1555	149
15°	1484	1488	1484	1478	1467	418
25°	1318	1328	1334	1325	1313	604
35°	1060	1075	1124	1130	1126	664
45°	821	835	862	901	906	633
55°	575	585	613	647	666	513
65°	337	346	366	392	415	334
75°	135	142	153	160	169	148
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°	1576.8	1576.8	1576.8	1576.8	1576.8
2.5°	1581.0	1581.6	1578.0	1568.3	1562.3
5°	1575.0	1574.4	1568.3	1559.8	1555.0
7.5°	1557.4	1558.6	1556.8	1544.7	1538.0
10°	1540.5	1541.1	1536.2	1526.5	1518.6
12.5°	1518.6	1518.0	1511.4	1506.5	1493.8
15°	1484.1	1487.8	1484.1	1477.5	1467.2
17.5°	1450.8	1450.8	1453.2	1441.7	1433.8
20°	1413.2	1415.1	1415.1	1406.0	1396.9
22.5°	1369.6	1375.1	1376.9	1367.2	1356.3
25°	1318.1	1328.4	1334.5	1324.8	1313.3
27.5°	1255.7	1271.5	1289.7	1282.4	1269.7
30°	1186.1	1209.1	1239.4	1233.3	1224.2
32.5°	1120.1	1143.1	1184.9	1182.4	1177.6
35°	1060.1	1074.6	1123.7	1129.7	1125.5
37.5°	1003.1	1016.5	1062.5	1076.4	1072.8
40°	943.2	957.7	994.1	1018.9	1020.1
42.5°	883.8	897.7	927.4	963.2	963.2
45°	820.8	834.7	862.0	901.4	906.2
47.5°	759.0	773.6	800.2	839.6	847.5
50°	698.4	711.8	738.4	776.6	788.7
52.5°	635.4	650.0	676.0	711.2	728.7
55°	574.9	584.6	613.0	647.0	665.7
57.5°	511.9	521.0	553.1	582.1	601.5
60°	451.3	462.8	487.6	517.3	539.7
62.5°	393.1	405.3	426.5	452.5	477.9
65°	336.8	345.9	366.5	392.5	414.9
67.5°	282.3	290.2	310.8	328.9	352.6
70°	227.2	237.5	252.6	270.2	285.3
72.5°	182.9	187.2	199.9	212.6	228.4
75°	135.1	142.4	152.7	159.9	169.0
77.5°	96.9	101.2	107.2	113.3	121.8
80°	64.8	66.6	72.1	73.3	80.0
82.5°	39.4	40.6	41.8	42.4	44.8
85°	21.2	21.2	21.2	20.0	20.0
87.5°	12.1	12.1	10.3	8.5	6.1
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)