

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: P556181

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-86-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: P556181
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

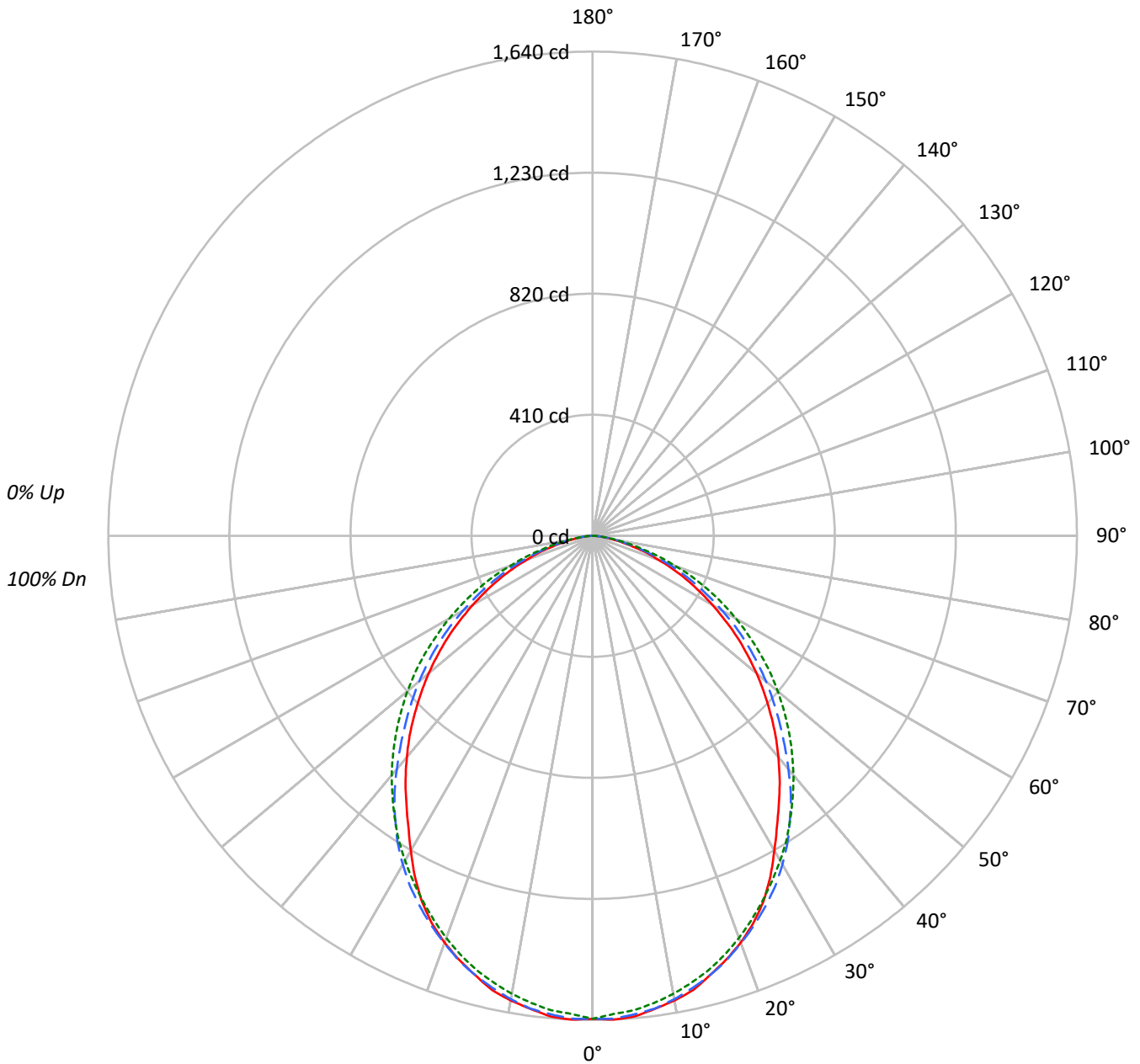
Lumens per Lamp: N/A
Luminaire Lumens: 3783.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	4402	4402	4402
5°	4414	4396	4358
10°	4367	4355	4306
15°	4290	4290	4241
20°	4199	4204	4151
25°	4061	4111	4046
30°	3824	3996	3947
35°	3613	3830	3836
40°	3438	3623	3718
45°	3241	3404	3578
50°	3034	3208	3426
55°	2799	2984	3240
60°	2520	2723	3014
65°	2225	2422	2741
70°	1854	2062	2329
75°	1458	1647	1824
80°	1043	1159	1286
85°	679	679	639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.0	4.1
10°-20°	432.7	11.4
20°-30°	632.4	16.7
30°-40°	717.8	19.0
40°-50°	692.9	18.3
50°-60°	571.6	15.1
60°-70°	380.7	10.1
70°-80°	170.3	4.5
80°-90°	30.5	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°	1219.2	32.2
0°-40°	1937.0	51.2
0°-60°	3201.5	84.6
0°-90°	3783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1636	1636	1636	1636	1636	
5°	1634	1634	1627	1618	1613	155
15°	1540	1544	1540	1533	1522	434
25°	1368	1378	1385	1375	1363	626
35°	1100	1115	1166	1172	1168	689
45°	852	866	894	935	940	657
55°	596	606	636	671	691	532
65°	350	359	380	407	430	347
75°	140	148	158	166	175	153
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1636.0	1636.0	1636.0	1636.0	1636.0
2.5°	1640.4	1641.1	1637.3	1627.3	1621.0
5°	1634.2	1633.5	1627.3	1618.5	1613.4
7.5°	1615.9	1617.2	1615.3	1602.7	1595.8
10°	1598.3	1599.0	1593.9	1583.9	1575.7
12.5°	1575.7	1575.1	1568.2	1563.1	1549.9
15°	1539.9	1543.7	1539.9	1533.0	1522.3
17.5°	1505.3	1505.3	1507.8	1495.9	1487.7
20°	1466.3	1468.2	1468.2	1458.8	1449.4
22.5°	1421.1	1426.8	1428.6	1418.6	1407.3
25°	1367.7	1378.4	1384.6	1374.6	1362.6
27.5°	1302.9	1319.3	1338.1	1330.6	1317.4
30°	1230.7	1254.5	1286.0	1279.7	1270.2
32.5°	1162.1	1186.0	1229.4	1226.9	1221.9
35°	1099.9	1115.0	1165.9	1172.2	1167.8
37.5°	1040.8	1054.7	1102.4	1116.9	1113.1
40°	978.6	993.7	1031.4	1057.2	1058.4
42.5°	917.0	931.5	962.3	999.4	999.4
45°	851.7	866.1	894.4	935.2	940.3
47.5°	787.5	802.6	830.3	871.1	879.3
50°	724.7	738.5	766.2	805.8	818.3
52.5°	659.3	674.4	701.4	737.9	756.1
55°	596.5	606.5	636.1	671.3	690.7
57.5°	531.1	540.5	573.8	604.0	624.1
60°	468.3	480.2	506.0	536.8	560.0
62.5°	407.9	420.5	442.5	469.5	495.9
65°	349.5	358.9	380.3	407.3	430.5
67.5°	292.9	301.1	322.4	341.3	365.8
70°	235.7	246.4	262.1	280.3	296.0
72.5°	189.8	194.2	207.4	220.6	237.0
75°	140.2	147.7	158.4	165.9	175.4
77.5°	100.6	105.0	111.2	117.5	126.3
80°	67.3	69.1	74.8	76.1	83.0
82.5°	40.9	42.1	43.4	44.0	46.5
85°	22.0	22.0	22.0	20.7	20.7
87.5°	12.6	12.6	10.7	8.8	6.3
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)