

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: P557318

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-81-87-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: P557318
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-LD4-2LO-40-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

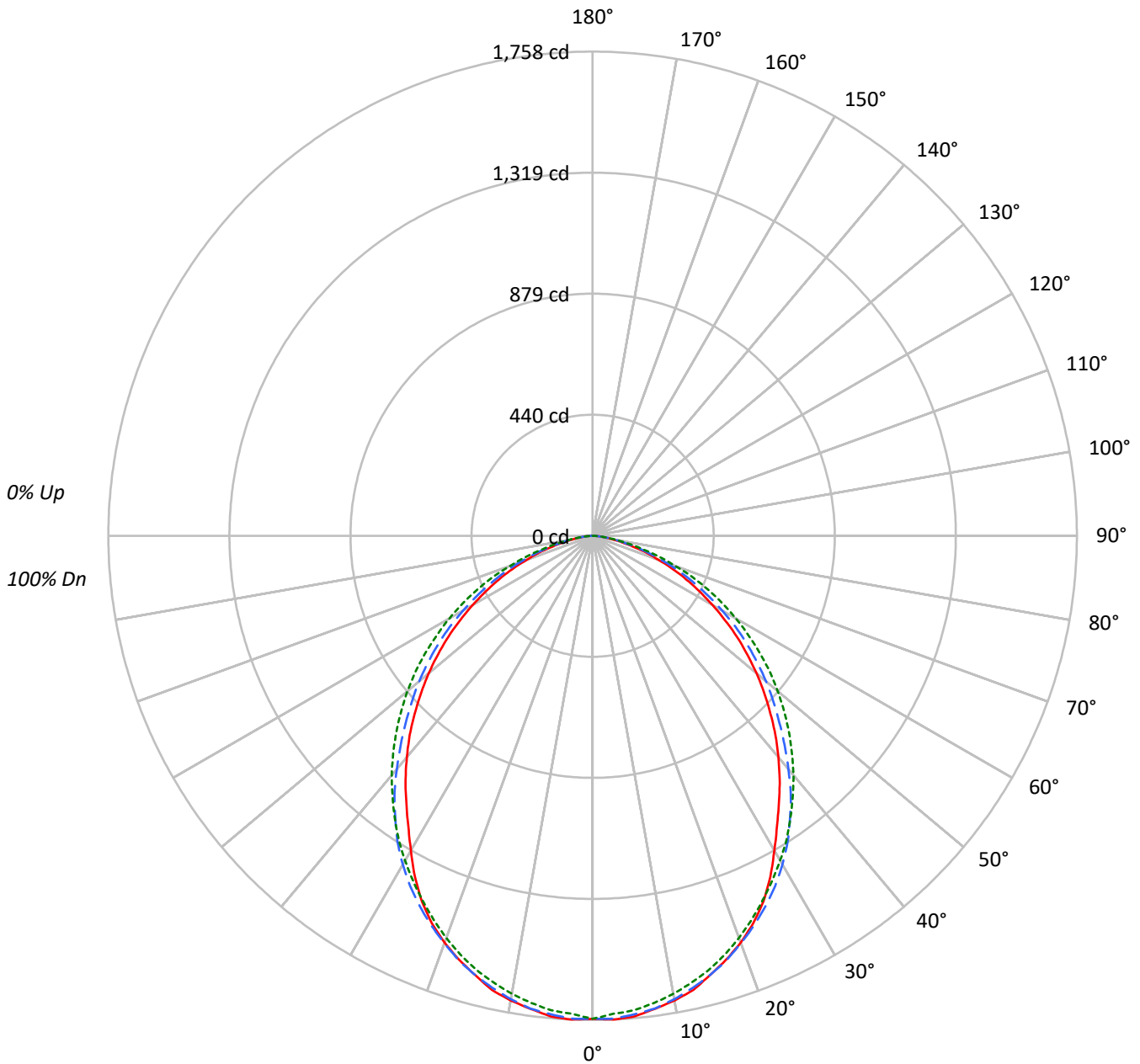
Lumens per Lamp: N/A
Luminaire Lumens: 4055.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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					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°	4719	4719	4719
5°	4732	4712	4672
10°	4682	4668	4615
15°	4598	4598	4546
20°	4501	4507	4449
25°	4353	4407	4337
30°	4099	4283	4231
35°	3873	4105	4112
40°	3685	3884	3985
45°	3474	3648	3836
50°	3252	3438	3672
55°	3000	3199	3474
60°	2701	2919	3231
65°	2385	2595	2939
70°	1987	2210	2496
75°	1562	1765	1955
80°	1117	1243	1378
85°	729	729	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.1	4.1
10°-20°	463.8	11.4
20°-30°	677.8	16.7
30°-40°	769.4	19.0
40°-50°	742.8	18.3
50°-60°	612.7	15.1
60°-70°	408.0	10.1
70°-80°	182.6	4.5
80°-90°	32.7	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°	1306.8	32.2
0°-40°	2076.2	51.2
0°-60°	3431.7	84.6
0°-90°	4055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1754	1754	1754	1754	1754	
5°	1752	1751	1744	1735	1729	166
15°	1651	1655	1651	1643	1632	465
25°	1466	1478	1484	1473	1461	671
35°	1179	1195	1250	1256	1252	739
45°	913	928	959	1002	1008	704
55°	639	650	682	720	740	571
65°	375	385	408	437	462	371
75°	150	158	170	178	188	164
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1753.7	1753.7	1753.7	1753.7	1753.7
2.5°	1758.4	1759.1	1755.0	1744.3	1737.5
5°	1751.7	1751.0	1744.3	1734.8	1729.4
7.5°	1732.1	1733.5	1731.5	1718.0	1710.6
10°	1713.3	1713.9	1708.5	1697.8	1689.0
12.5°	1689.0	1688.3	1680.9	1675.5	1661.4
15°	1650.6	1654.6	1650.6	1643.2	1631.7
17.5°	1613.5	1613.5	1616.2	1603.4	1594.7
20°	1571.8	1573.8	1573.8	1563.7	1553.6
22.5°	1523.3	1529.3	1531.4	1520.6	1508.5
25°	1466.0	1477.5	1484.2	1473.4	1460.6
27.5°	1396.6	1414.1	1434.3	1426.3	1412.1
30°	1319.1	1344.7	1378.4	1371.7	1361.6
32.5°	1245.7	1271.3	1317.8	1315.1	1309.7
35°	1179.0	1195.2	1249.7	1256.5	1251.8
37.5°	1115.7	1130.5	1181.7	1197.2	1193.2
40°	1049.0	1065.1	1105.6	1133.2	1134.5
42.5°	983.0	998.4	1031.5	1071.2	1071.2
45°	912.9	928.4	958.7	1002.5	1007.9
47.5°	844.2	860.3	890.0	933.8	942.5
50°	776.8	791.6	821.3	863.7	877.2
52.5°	706.7	722.9	751.9	790.9	810.5
55°	639.4	650.1	681.8	719.5	740.4
57.5°	569.3	579.4	615.1	647.4	669.0
60°	501.9	514.7	542.3	575.4	600.3
62.5°	437.2	450.7	474.3	503.3	531.6
65°	374.6	384.7	407.6	436.6	461.5
67.5°	314.0	322.7	345.6	365.8	392.1
70°	252.6	264.1	280.9	300.5	317.3
72.5°	203.5	208.2	222.3	236.5	254.0
75°	150.2	158.3	169.8	177.9	188.0
77.5°	107.8	112.5	119.2	126.0	135.4
80°	72.1	74.1	80.2	81.5	88.9
82.5°	43.8	45.1	46.5	47.2	49.9
85°	23.6	23.6	23.6	22.2	22.2
87.5°	13.5	13.5	11.5	9.4	6.7
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)