

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: P556299

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-81-94-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: P556299
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-40-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

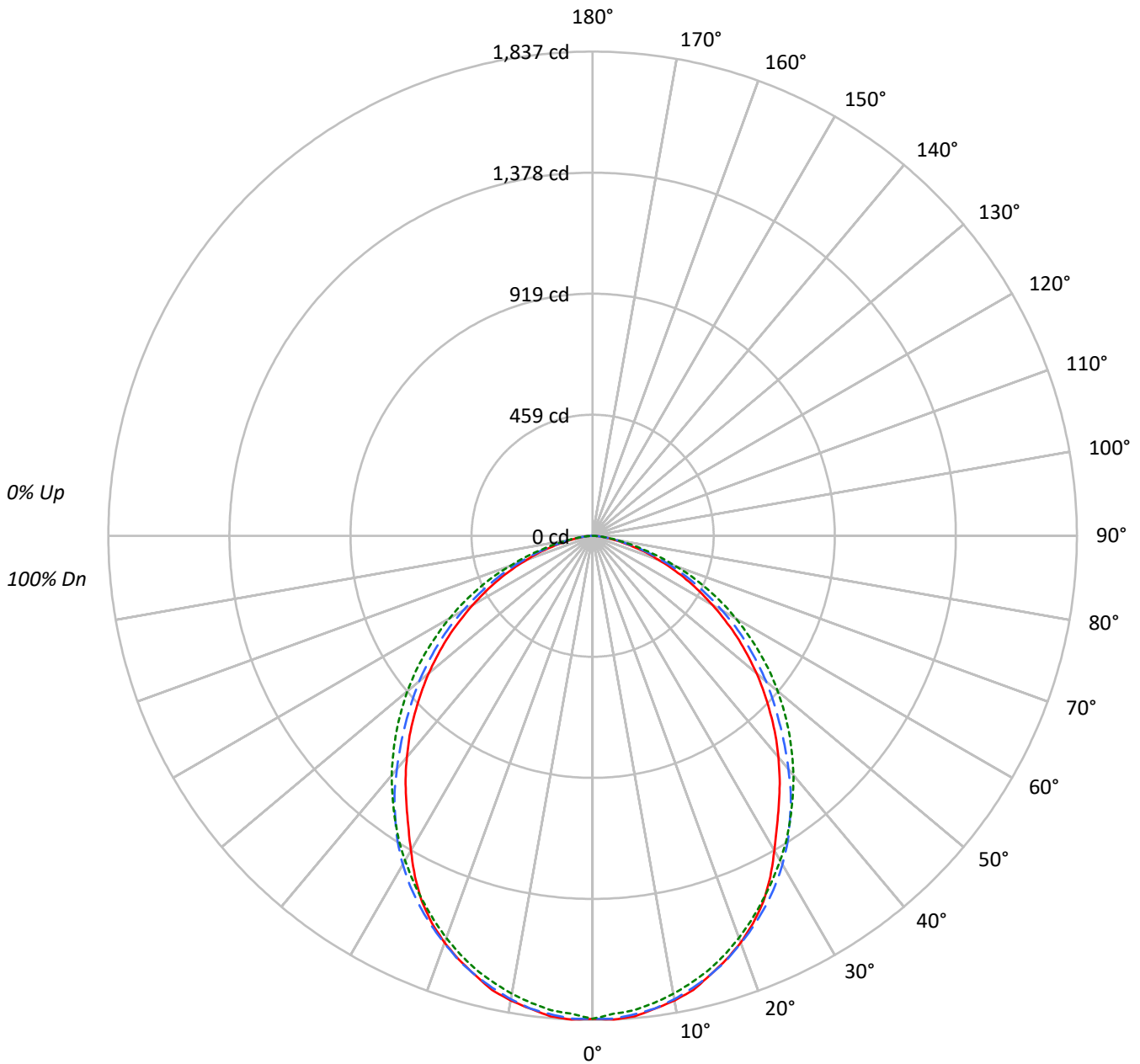
Lumens per Lamp: N/A
Luminaire Lumens: 4237.0 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4931	4931	4931
5°	4944	4923	4881
10°	4892	4878	4822
15°	4805	4805	4750
20°	4703	4709	4649
25°	4548	4605	4532
30°	4283	4475	4421
35°	4047	4290	4297
40°	3850	4058	4164
45°	3630	3812	4008
50°	3398	3592	3837
55°	3134	3342	3629
60°	2822	3050	3376
65°	2492	2712	3070
70°	2077	2309	2609
75°	1632	1844	2042
80°	1167	1299	1440
85°	760	760	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	4.1
10°-20°	484.7	11.4
20°-30°	708.3	16.7
30°-40°	804.0	19.0
40°-50°	776.1	18.3
50°-60°	640.2	15.1
60°-70°	426.3	10.1
70°-80°	190.8	4.5
80°-90°	34.1	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°	1365.5	32.2
0°-40°	2169.4	51.2
0°-60°	3585.7	84.6
0°-90°	4237.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4237.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1832	1832	1832	1832	1832	
5°	1830	1830	1822	1813	1807	173
15°	1725	1729	1725	1717	1705	486
25°	1532	1544	1551	1540	1526	701
35°	1232	1249	1306	1313	1308	772
45°	954	970	1002	1048	1053	736
55°	668	679	712	752	774	596
65°	391	402	426	456	482	388
75°	157	165	177	186	196	172
85°	25	25	25	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1832.4	1832.4	1832.4	1832.4	1832.4
2.5°	1837.3	1838.0	1833.8	1822.5	1815.5
5°	1830.3	1829.6	1822.5	1812.7	1807.1
7.5°	1809.9	1811.3	1809.2	1795.1	1787.3
10°	1790.2	1790.9	1785.2	1774.0	1764.8
12.5°	1764.8	1764.1	1756.4	1750.7	1736.0
15°	1724.7	1728.9	1724.7	1716.9	1705.0
17.5°	1686.0	1686.0	1688.8	1675.4	1666.3
20°	1642.3	1644.4	1644.4	1633.9	1623.3
22.5°	1591.6	1598.0	1600.1	1588.8	1576.2
25°	1531.8	1543.8	1550.8	1539.5	1526.2
27.5°	1459.3	1477.6	1498.7	1490.3	1475.5
30°	1378.3	1405.1	1440.3	1433.3	1422.7
32.5°	1301.6	1328.4	1376.9	1374.1	1368.5
35°	1231.9	1248.8	1305.8	1312.9	1307.9
37.5°	1165.7	1181.2	1234.7	1250.9	1246.7
40°	1096.1	1113.0	1155.2	1184.1	1185.5
42.5°	1027.1	1043.3	1077.8	1119.3	1119.3
45°	953.9	970.0	1001.7	1047.5	1053.1
47.5°	882.1	898.9	929.9	975.7	984.8
50°	811.7	827.1	858.1	902.5	916.5
52.5°	738.4	755.3	785.6	826.4	846.9
55°	668.1	679.3	712.4	751.8	773.6
57.5°	594.8	605.4	642.7	676.5	699.0
60°	524.4	537.8	566.7	601.2	627.2
62.5°	456.9	470.9	495.6	525.9	555.4
65°	391.4	402.0	425.9	456.2	482.2
67.5°	328.0	337.2	361.1	382.2	409.7
70°	264.0	276.0	293.5	314.0	331.6
72.5°	212.6	217.5	232.3	247.1	265.4
75°	157.0	165.4	177.4	185.8	196.4
77.5°	112.6	117.6	124.6	131.6	141.5
80°	75.3	77.4	83.8	85.2	92.9
82.5°	45.8	47.2	48.6	49.3	52.1
85°	24.6	24.6	24.6	23.2	23.2
87.5°	14.1	14.1	12.0	9.9	7.0
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)