

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: P556363

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-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: P556363
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

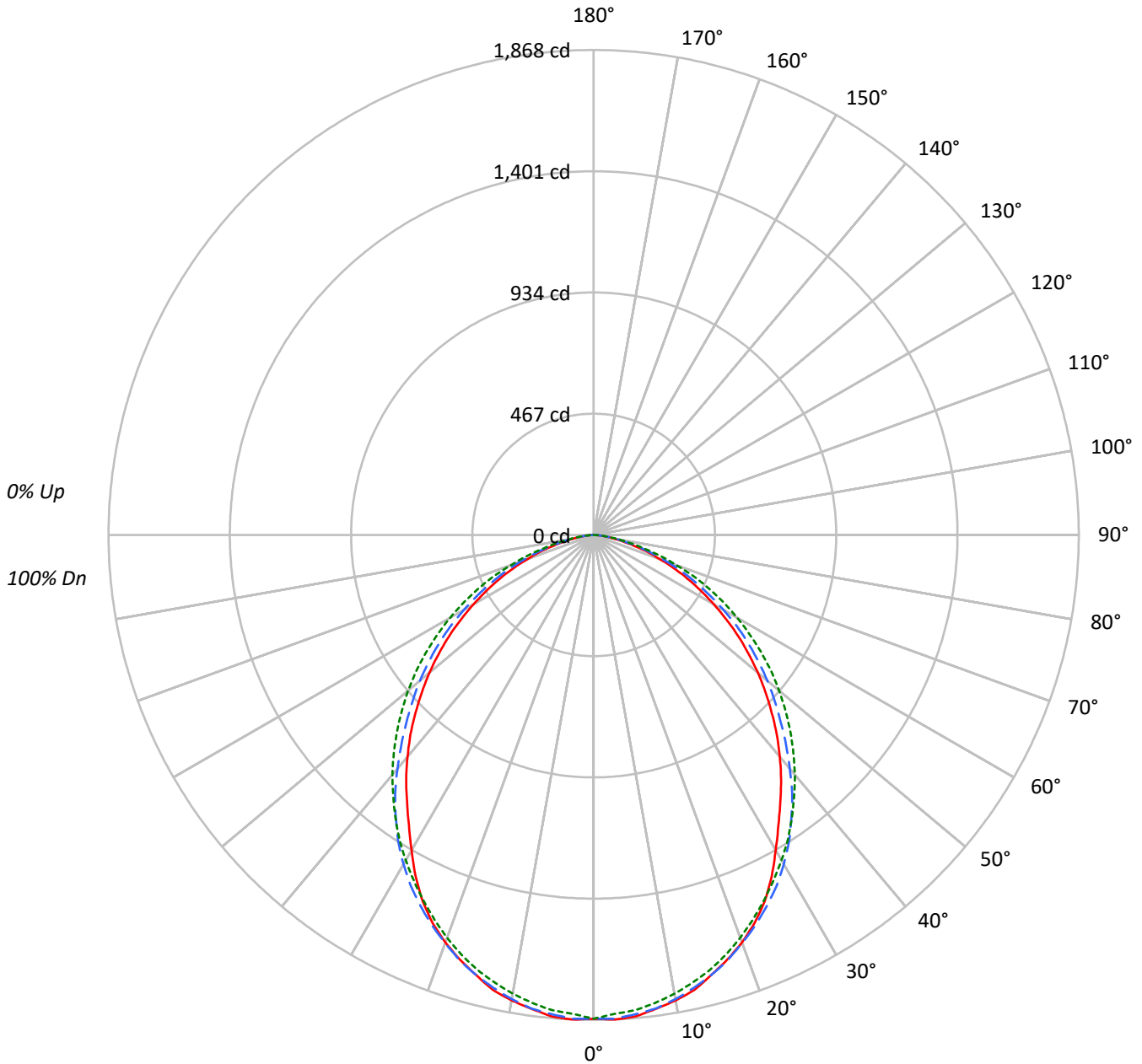
Lumens per Lamp: N/A
Luminaire Lumens: 4309.0 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5015	5015	5015
5°	5028	5007	4964
10°	4975	4961	4904
15°	4886	4886	4831
20°	4783	4789	4728
25°	4625	4683	4608
30°	4356	4552	4496
35°	4116	4363	4370
40°	3916	4127	4235
45°	3692	3877	4076
50°	3456	3653	3902
55°	3187	3399	3691
60°	2871	3102	3433
65°	2534	2758	3123
70°	2113	2349	2653
75°	1659	1876	2076
80°	1187	1320	1464
85°	775	775	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.5	4.1
10°-20°	492.9	11.4
20°-30°	720.3	16.7
30°-40°	817.6	19.0
40°-50°	789.3	18.3
50°-60°	651.1	15.1
60°-70°	433.6	10.1
70°-80°	194.0	4.5
80°-90°	34.7	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°	1388.7	32.2
0°-40°	2206.3	51.2
0°-60°	3646.7	84.6
0°-90°	4309.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4309.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1864	1864	1864	1864	1864	
5°	1861	1861	1854	1844	1838	176
15°	1754	1758	1754	1746	1734	494
25°	1558	1570	1577	1566	1552	713
35°	1253	1270	1328	1335	1330	785
45°	970	986	1019	1065	1071	748
55°	679	691	724	765	787	606
65°	398	409	433	464	490	395
75°	160	168	180	189	200	175
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1863.5	1863.5	1863.5	1863.5	1863.5
2.5°	1868.5	1869.3	1865.0	1853.5	1846.3
5°	1861.4	1860.7	1853.5	1843.5	1837.8
7.5°	1840.6	1842.1	1839.9	1825.6	1817.7
10°	1820.6	1821.3	1815.6	1804.1	1794.8
12.5°	1794.8	1794.1	1786.2	1780.5	1765.5
15°	1754.0	1758.3	1754.0	1746.1	1734.0
17.5°	1714.6	1714.6	1717.5	1703.9	1694.6
20°	1670.2	1672.4	1672.4	1661.6	1650.9
22.5°	1618.7	1625.1	1627.3	1615.8	1602.9
25°	1557.8	1570.0	1577.2	1565.7	1552.1
27.5°	1484.1	1502.7	1524.2	1515.6	1500.6
30°	1401.8	1429.0	1464.8	1457.6	1446.9
32.5°	1323.7	1350.9	1400.3	1397.5	1391.7
35°	1252.9	1270.0	1328.0	1335.2	1330.2
37.5°	1185.6	1201.3	1255.7	1272.2	1267.9
40°	1114.7	1131.9	1174.8	1204.2	1205.6
42.5°	1044.5	1061.0	1096.1	1138.3	1138.3
45°	970.1	986.5	1018.7	1065.3	1071.0
47.5°	897.0	914.2	945.7	992.3	1001.6
50°	825.5	841.2	872.7	917.8	932.1
52.5°	751.0	768.2	799.0	840.5	861.2
55°	679.4	690.9	724.5	764.6	786.8
57.5°	604.9	615.7	653.6	688.0	710.9
60°	533.4	547.0	576.3	611.4	637.9
62.5°	464.6	478.9	504.0	534.8	564.9
65°	398.0	408.8	433.1	463.9	490.4
67.5°	333.6	342.9	367.3	388.7	416.7
70°	268.5	280.6	298.5	319.3	337.2
72.5°	216.2	221.2	236.3	251.3	269.9
75°	159.6	168.2	180.4	189.0	199.7
77.5°	114.5	119.6	126.7	133.9	143.9
80°	76.6	78.8	85.2	86.6	94.5
82.5°	46.5	48.0	49.4	50.1	53.0
85°	25.1	25.1	25.1	23.6	23.6
87.5°	14.3	14.3	12.2	10.0	7.2
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)