

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: P556263

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-87-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: P556263
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-35-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

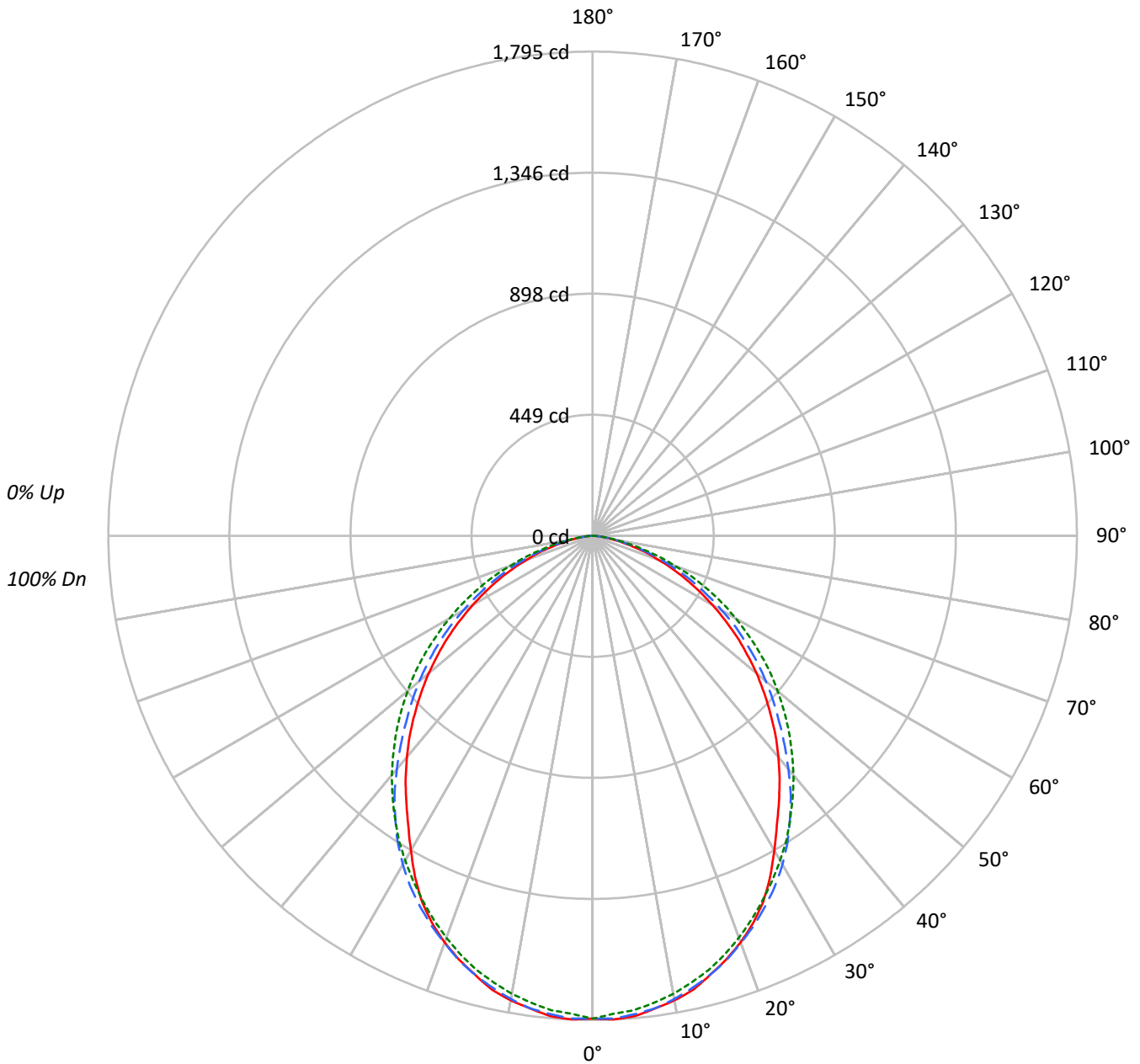
Lumens per Lamp: N/A
Luminaire Lumens: 4139.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4817	4817	4817
5°	4830	4809	4769
10°	4779	4765	4711
15°	4694	4694	4640
20°	4594	4600	4541
25°	4443	4498	4427
30°	4184	4372	4318
35°	3953	4190	4197
40°	3761	3964	4068
45°	3546	3724	3915
50°	3319	3509	3748
55°	3062	3265	3546
60°	2757	2979	3298
65°	2434	2649	3000
70°	2029	2257	2548
75°	1595	1802	1995
80°	1141	1268	1407
85°	744	744	701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.5	4.1
10°-20°	473.5	11.4
20°-30°	691.9	16.7
30°-40°	785.4	19.0
40°-50°	758.2	18.3
50°-60°	625.4	15.1
60°-70°	416.5	10.1
70°-80°	186.4	4.5
80°-90°	33.3	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°	1333.9	32.2
0°-40°	2119.2	51.2
0°-60°	3502.8	84.6
0°-90°	4139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4139.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1790	1790	1790	1790	1790	
5°	1788	1787	1780	1771	1765	169
15°	1685	1689	1685	1677	1666	475
25°	1496	1508	1515	1504	1491	685
35°	1203	1220	1276	1282	1278	754
45°	932	948	979	1023	1029	719
55°	653	664	696	734	756	582
65°	382	393	416	446	471	379
75°	153	162	173	182	192	168
85°	24	24	24	23	23	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1790.0	1790.0	1790.0	1790.0	1790.0
2.5°	1794.8	1795.5	1791.4	1780.4	1773.5
5°	1787.9	1787.3	1780.4	1770.8	1765.3
7.5°	1768.0	1769.4	1767.3	1753.6	1746.0
10°	1748.8	1749.4	1743.9	1732.9	1724.0
12.5°	1724.0	1723.3	1715.7	1710.2	1695.8
15°	1684.8	1688.9	1684.8	1677.2	1665.5
17.5°	1647.0	1647.0	1649.7	1636.7	1627.7
20°	1604.3	1606.4	1606.4	1596.1	1585.8
22.5°	1554.8	1561.0	1563.1	1552.1	1539.7
25°	1496.4	1508.1	1514.9	1503.9	1490.9
27.5°	1425.5	1443.4	1464.1	1455.8	1441.4
30°	1346.5	1372.6	1407.0	1400.1	1389.8
32.5°	1271.5	1297.6	1345.1	1342.3	1336.8
35°	1203.4	1219.9	1275.6	1282.5	1277.7
37.5°	1138.8	1153.9	1206.2	1222.0	1217.9
40°	1070.7	1087.2	1128.5	1156.7	1158.0
42.5°	1003.3	1019.1	1052.8	1093.4	1093.4
45°	931.8	947.6	978.6	1023.3	1028.8
47.5°	861.7	878.2	908.4	953.1	962.1
50°	792.9	808.0	838.3	881.6	895.3
52.5°	721.4	737.9	767.4	807.3	827.3
55°	652.6	663.6	695.9	734.4	755.8
57.5°	581.1	591.4	627.8	660.9	682.9
60°	512.3	525.4	553.6	587.3	612.7
62.5°	446.3	460.1	484.1	513.7	542.6
65°	382.3	392.7	416.0	445.6	471.1
67.5°	320.5	329.4	352.8	373.4	400.2
70°	257.9	269.6	286.8	306.7	323.9
72.5°	207.7	212.5	226.9	241.4	259.3
75°	153.4	161.6	173.3	181.5	191.9
77.5°	110.0	114.8	121.7	128.6	138.2
80°	73.6	75.6	81.8	83.2	90.8
82.5°	44.7	46.1	47.4	48.1	50.9
85°	24.1	24.1	24.1	22.7	22.7
87.5°	13.8	13.8	11.7	9.6	6.9
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)