

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: P556265

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-88-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: P556265
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-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

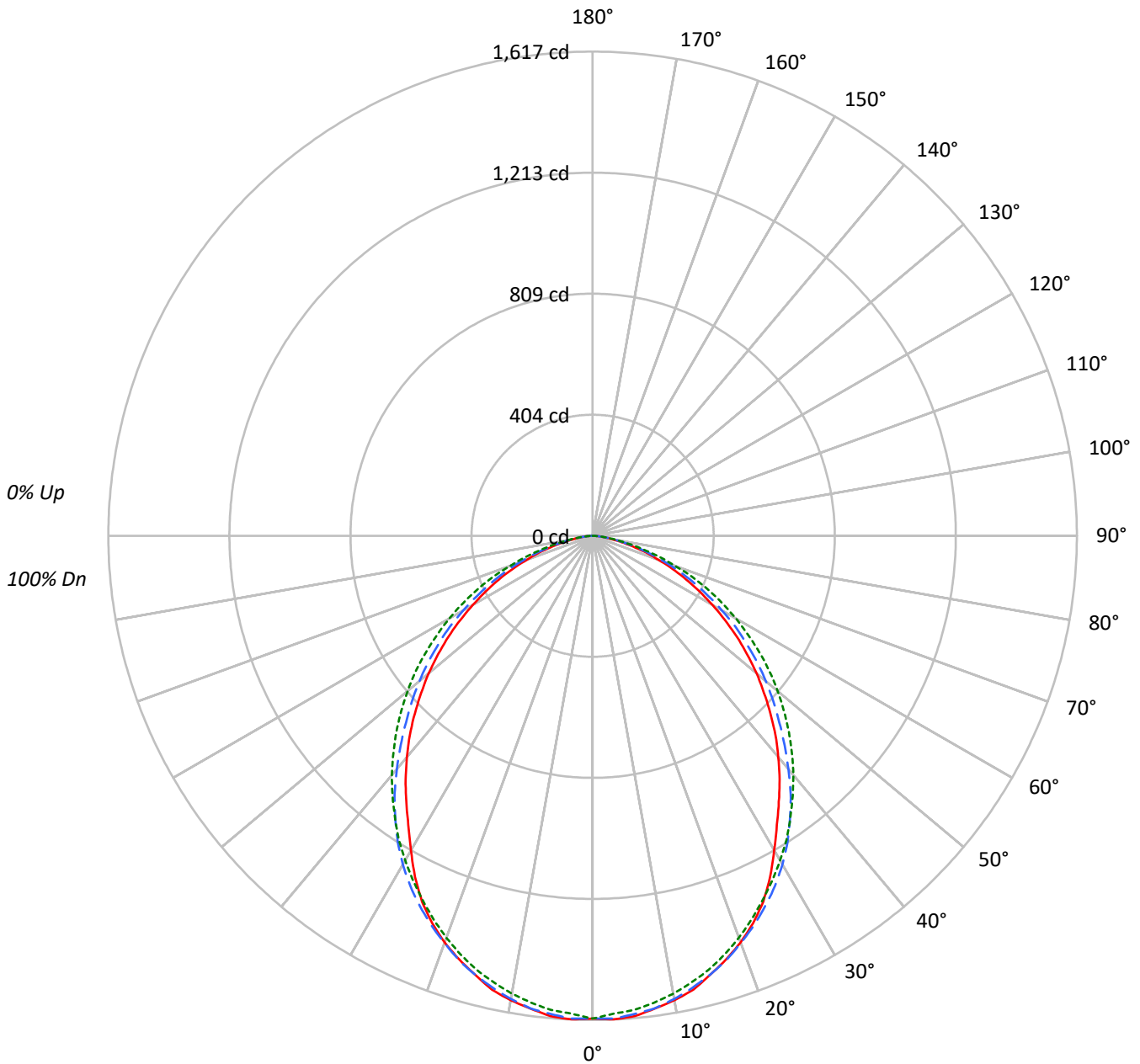
Lumens per Lamp: N/A
Luminaire Lumens: 3728.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4339	4339	4339
5°	4350	4332	4295
10°	4304	4292	4243
15°	4228	4228	4179
20°	4138	4143	4090
25°	4002	4051	3987
30°	3769	3938	3890
35°	3561	3775	3780
40°	3388	3570	3664
45°	3194	3354	3526
50°	2990	3161	3376
55°	2758	2941	3194
60°	2483	2683	2970
65°	2193	2386	2702
70°	1828	2032	2295
75°	1436	1623	1797
80°	1027	1142	1268
85°	670	670	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.8	4.1
10°-20°	426.4	11.4
20°-30°	623.2	16.7
30°-40°	707.4	19.0
40°-50°	682.9	18.3
50°-60°	563.3	15.1
60°-70°	375.1	10.1
70°-80°	167.9	4.5
80°-90°	30.0	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°	1201.4	32.2
0°-40°	1908.8	51.2
0°-60°	3155.0	84.6
0°-90°	3728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3728.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1610	1610	1604	1595	1590	152
15°	1518	1521	1518	1511	1500	428
25°	1348	1358	1364	1355	1343	617
35°	1084	1099	1149	1155	1151	679
45°	839	854	881	922	927	648
55°	588	598	627	662	681	525
65°	344	354	375	401	424	341
75°	138	146	156	164	173	151
85°	22	22	22	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1612.3	1612.3	1612.3	1612.3	1612.3
2.5°	1616.6	1617.2	1613.5	1603.6	1597.4
5°	1610.4	1609.8	1603.6	1594.9	1590.0
7.5°	1592.4	1593.7	1591.8	1579.4	1572.6
10°	1575.1	1575.7	1570.8	1560.9	1552.8
12.5°	1552.8	1552.2	1545.4	1540.4	1527.4
15°	1517.5	1521.2	1517.5	1510.7	1500.2
17.5°	1483.4	1483.4	1485.9	1474.1	1466.1
20°	1445.0	1446.9	1446.9	1437.6	1428.3
22.5°	1400.4	1406.0	1407.9	1398.0	1386.8
25°	1347.8	1358.3	1364.5	1354.6	1342.8
27.5°	1284.0	1300.1	1318.7	1311.2	1298.2
30°	1212.8	1236.3	1267.3	1261.1	1251.8
32.5°	1145.2	1168.8	1211.5	1209.0	1204.1
35°	1083.9	1098.8	1149.0	1155.2	1150.8
37.5°	1025.7	1039.3	1086.4	1100.7	1096.9
40°	964.4	979.3	1016.4	1041.8	1043.0
42.5°	903.7	917.9	948.3	984.8	984.8
45°	839.3	853.5	881.4	921.6	926.6
47.5°	776.1	791.0	818.2	858.5	866.5
50°	714.2	727.8	755.0	794.1	806.4
52.5°	649.7	664.6	691.2	727.2	745.1
55°	587.8	597.7	626.8	661.5	680.7
57.5°	523.4	532.7	565.5	595.2	615.1
60°	461.4	473.2	498.6	529.0	551.9
62.5°	402.0	414.4	436.0	462.7	488.7
65°	344.4	353.7	374.7	401.4	424.3
67.5°	288.6	296.7	317.7	336.3	360.5
70°	232.3	242.8	258.3	276.2	291.7
72.5°	187.1	191.4	204.4	217.4	233.5
75°	138.1	145.6	156.1	163.5	172.8
77.5°	99.1	103.4	109.6	115.8	124.5
80°	66.3	68.1	73.7	74.9	81.8
82.5°	40.3	41.5	42.7	43.4	45.8
85°	21.7	21.7	21.7	20.4	20.4
87.5°	12.4	12.4	10.5	8.7	6.2
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)