

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: P556032

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-81-84-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: P556032
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-12-2-LD4-3STD-40-UNV-81-84-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

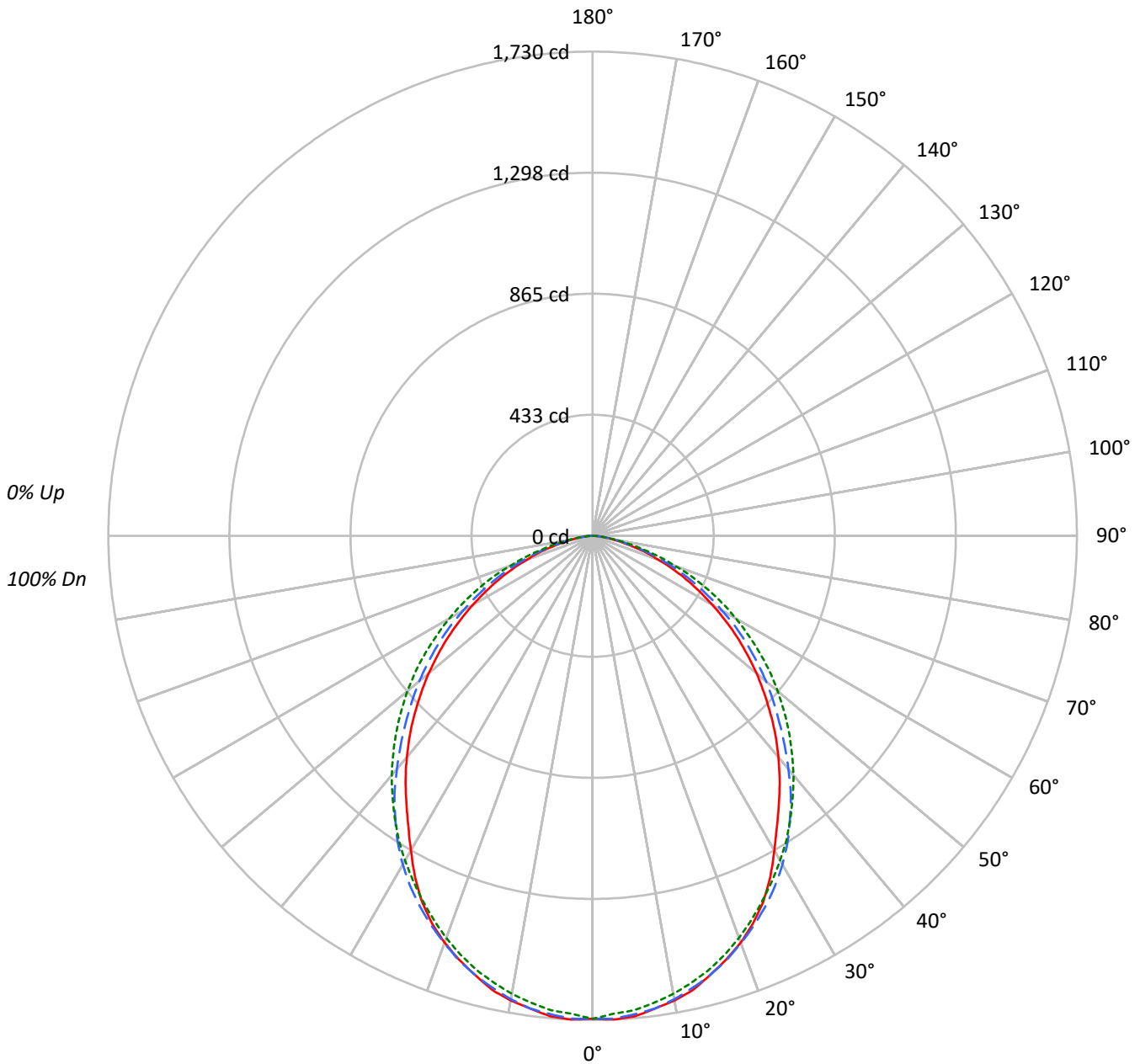
Lumens per Lamp: N/A
Luminaire Lumens: 3990.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	9287	9287	9287
5°	9312	9272	9193
10°	9213	9188	9082
15°	9049	9049	8946
20°	8858	8869	8755
25°	8566	8672	8535
30°	8066	8429	8326
35°	7622	8079	8092
40°	7252	7642	7843
45°	6837	7180	7548
50°	6399	6766	7227
55°	5903	6295	6836
60°	5316	5744	6358
65°	4694	5108	5783
70°	3912	4349	4913
75°	3073	3475	3847
80°	2197	2445	2712
85°	1433	1433	1352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	4.1
10°-20°	456.4	11.4
20°-30°	667.0	16.7
30°-40°	757.1	19.0
40°-50°	730.8	18.3
50°-60°	602.9	15.1
60°-70°	401.5	10.1
70°-80°	179.7	4.5
80°-90°	32.1	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°	1285.9	32.2
0°-40°	2043.0	51.2
0°-60°	3376.7	84.6
0°-90°	3990.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3990.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1726	1726	1726	1726	1726	
5°	1724	1723	1716	1707	1702	163
15°	1624	1628	1624	1617	1606	458
25°	1442	1454	1460	1450	1437	661
35°	1160	1176	1230	1236	1232	727
45°	898	914	943	986	992	693
55°	629	640	671	708	728	562
65°	369	378	401	430	454	365
75°	148	156	167	175	185	162
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1725.6	1725.6	1725.6	1725.6	1725.6
2.5°	1730.2	1730.9	1726.9	1716.3	1709.7
5°	1723.6	1722.9	1716.3	1707.0	1701.7
7.5°	1704.4	1705.7	1703.7	1690.4	1683.1
10°	1685.8	1686.5	1681.2	1670.5	1661.9
12.5°	1661.9	1661.3	1654.0	1648.7	1634.8
15°	1624.1	1628.1	1624.1	1616.9	1605.6
17.5°	1587.7	1587.7	1590.3	1577.7	1569.1
20°	1546.6	1548.6	1548.6	1538.6	1528.7
22.5°	1498.9	1504.8	1506.8	1496.2	1484.3
25°	1442.5	1453.8	1460.4	1449.8	1437.2
27.5°	1374.2	1391.5	1411.3	1403.4	1389.5
30°	1298.0	1323.2	1356.3	1349.7	1339.8
32.5°	1225.7	1250.9	1296.7	1294.0	1288.7
35°	1160.1	1176.0	1229.7	1236.3	1231.7
37.5°	1097.8	1112.4	1162.8	1178.0	1174.0
40°	1032.2	1048.1	1087.8	1115.0	1116.4
42.5°	967.2	982.4	1014.9	1054.0	1054.0
45°	898.3	913.5	943.3	986.4	991.7
47.5°	830.6	846.5	875.7	918.8	927.4
50°	764.3	778.9	808.1	849.9	863.1
52.5°	695.4	711.3	739.8	778.3	797.5
55°	629.1	639.7	670.9	708.0	728.5
57.5°	560.2	570.1	605.2	637.1	658.3
60°	493.9	506.5	533.6	566.1	590.7
62.5°	430.2	443.5	466.7	495.2	523.0
65°	368.6	378.5	401.1	429.6	454.1
67.5°	308.9	317.5	340.1	360.0	385.8
70°	248.6	259.9	276.4	295.7	312.2
72.5°	200.2	204.8	218.8	232.7	249.9
75°	147.8	155.8	167.1	175.0	185.0
77.5°	106.1	110.7	117.3	124.0	133.2
80°	70.9	72.9	78.9	80.2	87.5
82.5°	43.1	44.4	45.7	46.4	49.1
85°	23.2	23.2	23.2	21.9	21.9
87.5°	13.3	13.3	11.3	9.3	6.6
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)