

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: P556060

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-82-96-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: P556060
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-82-96-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

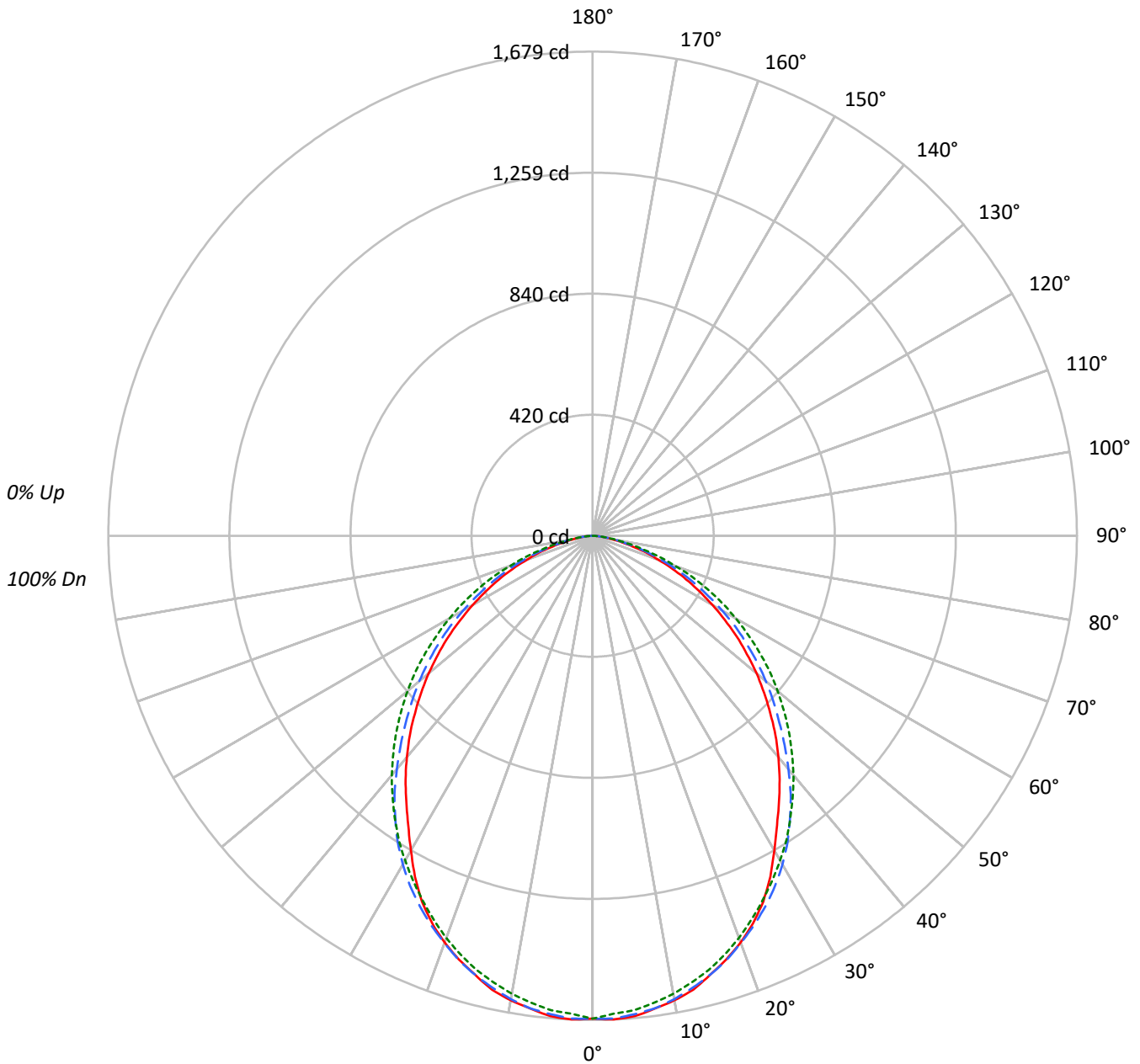
Lumens per Lamp: N/A
Luminaire Lumens: 3872.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9012	9012	9012
5°	9036	8998	8922
10°	8940	8916	8814
15°	8782	8782	8681
20°	8596	8607	8497
25°	8312	8416	8282
30°	7828	8180	8080
35°	7397	7840	7853
40°	7037	7417	7611
45°	6635	6967	7325
50°	6210	6566	7013
55°	5728	6108	6634
60°	5159	5575	6170
65°	4555	4956	5612
70°	3795	4222	4768
75°	2984	3371	3733
80°	2132	2374	2631
85°	1389	1389	1309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.7	4.1
10°-20°	442.9	11.4
20°-30°	647.2	16.7
30°-40°	734.7	19.0
40°-50°	709.2	18.3
50°-60°	585.1	15.1
60°-70°	389.6	10.1
70°-80°	174.3	4.5
80°-90°	31.2	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°	1247.8	32.2
0°-40°	1982.5	51.2
0°-60°	3276.8	84.6
0°-90°	3872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1674	1674	1674	1674	1674	
5°	1673	1672	1666	1656	1651	158
15°	1576	1580	1576	1569	1558	444
25°	1400	1411	1417	1407	1395	641
35°	1126	1141	1193	1200	1195	705
45°	872	886	915	957	962	673
55°	610	621	651	687	707	545
65°	358	367	389	417	441	355
75°	144	151	162	170	180	157
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1674.5	1674.5	1674.5	1674.5	1674.5
2.5°	1679.0	1679.7	1675.8	1665.5	1659.1
5°	1672.6	1672.0	1665.5	1656.5	1651.4
7.5°	1654.0	1655.2	1653.3	1640.4	1633.4
10°	1635.9	1636.6	1631.4	1621.1	1612.8
12.5°	1612.8	1612.1	1605.1	1599.9	1586.4
15°	1576.1	1580.0	1576.1	1569.0	1558.1
17.5°	1540.7	1540.7	1543.3	1531.1	1522.7
20°	1500.8	1502.8	1502.8	1493.1	1483.5
22.5°	1454.5	1460.3	1462.2	1452.0	1440.4
25°	1399.8	1410.8	1417.2	1406.9	1394.7
27.5°	1333.6	1350.3	1369.6	1361.9	1348.4
30°	1259.6	1284.0	1316.2	1309.8	1300.1
32.5°	1189.5	1213.9	1258.3	1255.7	1250.6
35°	1125.8	1141.2	1193.3	1199.8	1195.3
37.5°	1065.3	1079.5	1128.4	1143.2	1139.3
40°	1001.6	1017.1	1055.7	1082.1	1083.3
42.5°	938.6	953.4	984.9	1022.9	1022.9
45°	871.7	886.5	915.4	957.2	962.4
47.5°	806.1	821.5	849.8	891.6	900.0
50°	741.7	755.9	784.2	824.7	837.6
52.5°	674.8	690.3	717.9	755.2	773.9
55°	610.5	620.8	651.0	687.1	707.0
57.5°	543.6	553.2	587.3	618.2	638.8
60°	479.3	491.5	517.9	549.4	573.2
62.5°	417.5	430.4	452.9	480.6	507.6
65°	357.7	367.3	389.2	416.9	440.7
67.5°	299.8	308.1	330.0	349.3	374.4
70°	241.2	252.2	268.3	286.9	303.0
72.5°	194.3	198.8	212.3	225.8	242.5
75°	143.5	151.2	162.1	169.8	179.5
77.5°	102.9	107.4	113.9	120.3	129.3
80°	68.8	70.8	76.6	77.8	84.9
82.5°	41.8	43.1	44.4	45.0	47.6
85°	22.5	22.5	22.5	21.2	21.2
87.5°	12.9	12.9	10.9	9.0	6.4
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)