

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: P556322

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-93-85-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: P556322
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-40-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

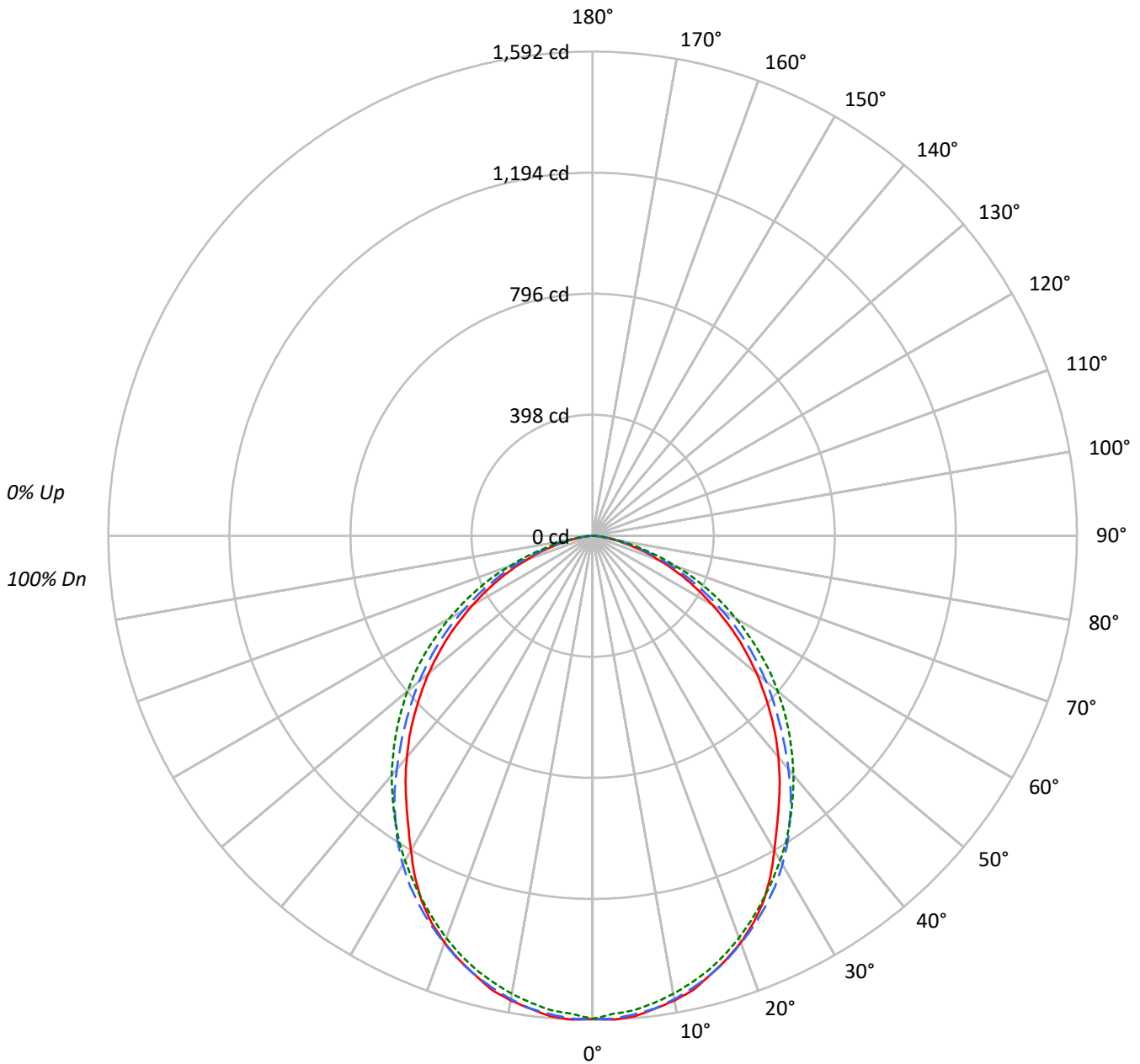
Lumens per Lamp: N/A
Luminaire Lumens: 3672.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4273	4273	4273
5°	4285	4267	4230
10°	4239	4228	4179
15°	4164	4164	4116
20°	4076	4081	4029
25°	3942	3991	3927
30°	3712	3879	3831
35°	3507	3718	3724
40°	3337	3517	3609
45°	3146	3304	3473
50°	2945	3113	3325
55°	2716	2897	3146
60°	2446	2643	2926
65°	2160	2350	2661
70°	1800	2002	2260
75°	1414	1598	1770
80°	1012	1125	1247
85°	661	661	621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	4.1
10°-20°	420.0	11.4
20°-30°	613.8	16.7
30°-40°	696.7	19.0
40°-50°	672.6	18.3
50°-60°	554.9	15.1
60°-70°	369.5	10.1
70°-80°	165.3	4.5
80°-90°	29.6	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°	1183.4	32.2
0°-40°	1880.1	51.2
0°-60°	3107.6	84.6
0°-90°	3672.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3672.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1586	1586	1580	1571	1566	150
15°	1495	1498	1495	1488	1478	421
25°	1328	1338	1344	1334	1323	608
35°	1068	1082	1132	1138	1134	669
45°	827	841	868	908	913	638
55°	579	589	617	652	670	517
65°	339	348	369	395	418	336
75°	136	143	154	161	170	149
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1588.0	1588.0	1588.0	1588.0	1588.0
2.5°	1592.3	1592.9	1589.3	1579.5	1573.4
5°	1586.2	1585.6	1579.5	1571.0	1566.1
7.5°	1568.5	1569.7	1567.9	1555.7	1549.0
10°	1551.4	1552.1	1547.2	1537.4	1529.5
12.5°	1529.5	1528.9	1522.2	1517.3	1504.5
15°	1494.7	1498.4	1494.7	1488.0	1477.6
17.5°	1461.1	1461.1	1463.6	1452.0	1444.1
20°	1423.3	1425.2	1425.2	1416.0	1406.9
22.5°	1379.4	1384.9	1386.7	1377.0	1366.0
25°	1327.5	1337.9	1344.0	1334.3	1322.7
27.5°	1264.7	1280.6	1298.9	1291.5	1278.7
30°	1194.5	1217.7	1248.2	1242.1	1233.0
32.5°	1128.0	1151.2	1193.3	1190.9	1186.0
35°	1067.6	1082.3	1131.7	1137.8	1133.5
37.5°	1010.3	1023.7	1070.1	1084.1	1080.5
40°	949.9	964.5	1001.1	1026.2	1027.4
42.5°	890.1	904.1	934.0	970.0	970.0
45°	826.7	840.7	868.1	907.8	912.7
47.5°	764.4	779.1	805.9	845.6	853.5
50°	703.4	716.8	743.7	782.1	794.3
52.5°	640.0	654.6	680.9	716.2	733.9
55°	579.0	588.7	617.4	651.6	670.5
57.5°	515.5	524.7	557.0	586.3	605.8
60°	454.5	466.1	491.1	521.0	543.6
62.5°	395.9	408.1	429.5	455.7	481.4
65°	339.2	348.4	369.1	395.3	417.9
67.5°	284.3	292.2	313.0	331.3	355.1
70°	228.8	239.2	254.4	272.1	287.3
72.5°	184.2	188.5	201.3	214.1	230.0
75°	136.0	143.4	153.7	161.1	170.2
77.5°	97.6	101.9	108.0	114.1	122.6
80°	65.3	67.1	72.6	73.8	80.5
82.5°	39.7	40.9	42.1	42.7	45.1
85°	21.4	21.4	21.4	20.1	20.1
87.5°	12.2	12.2	10.4	8.5	6.1
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)