

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: P556188

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-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: P556188
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-30-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

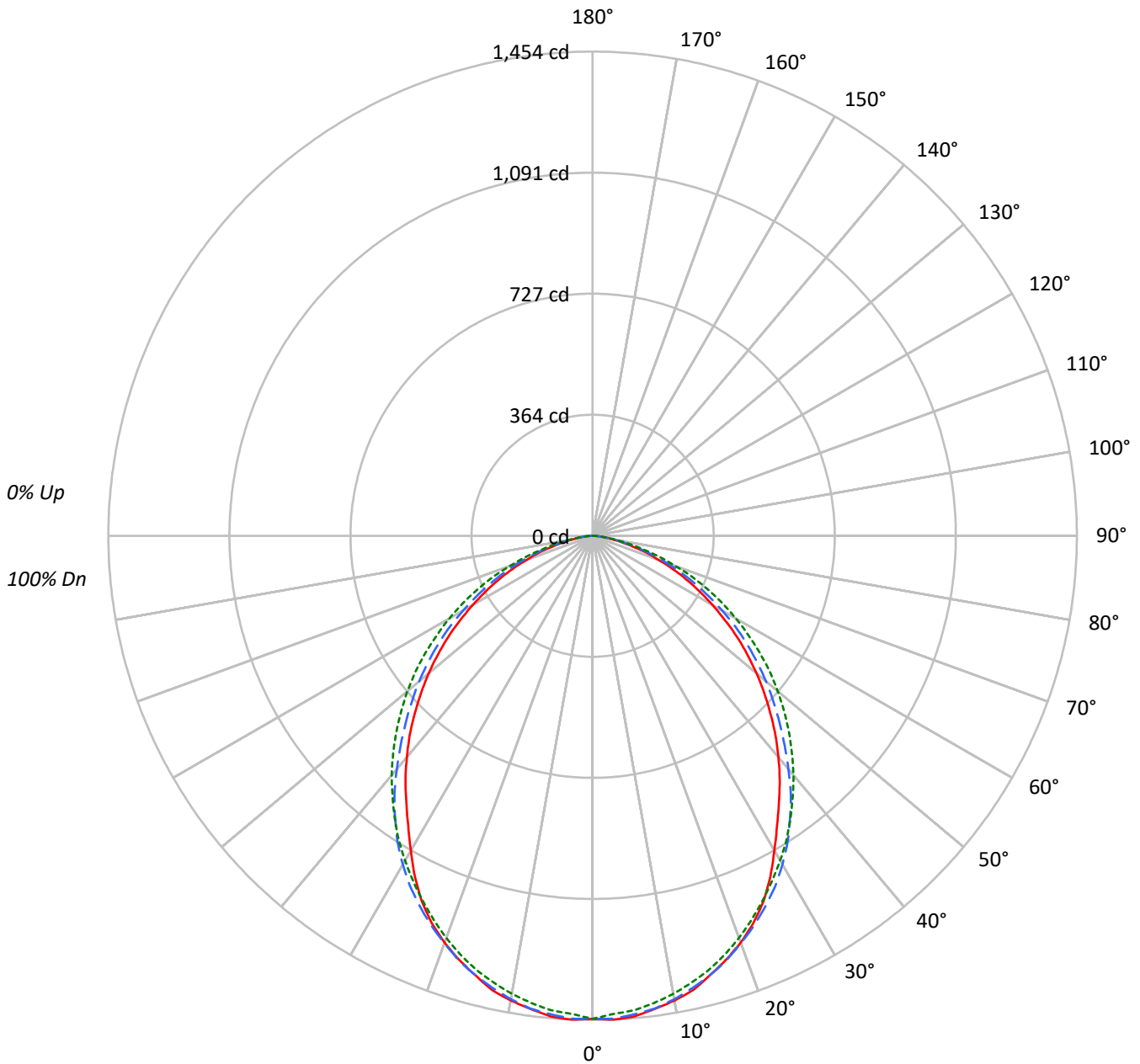
Lumens per Lamp: N/A
Luminaire Lumens: 3354.0 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3903	3903	3903
5°	3914	3897	3864
10°	3872	3862	3817
15°	3804	3804	3760
20°	3723	3728	3680
25°	3600	3645	3587
30°	3390	3543	3499
35°	3204	3396	3401
40°	3048	3212	3296
45°	2874	3018	3172
50°	2690	2844	3037
55°	2481	2646	2873
60°	2235	2414	2672
65°	1973	2146	2430
70°	1644	1828	2065
75°	1292	1460	1617
80°	924	1027	1141
85°	602	602	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.6	4.1
10°-20°	383.7	11.4
20°-30°	560.7	16.7
30°-40°	636.4	19.0
40°-50°	614.3	18.3
50°-60°	506.8	15.1
60°-70°	337.5	10.1
70°-80°	151.0	4.5
80°-90°	27.0	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°	1080.9	32.2
0°-40°	1717.3	51.2
0°-60°	2838.5	84.6
0°-90°	3354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3354.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1450	1450	1450	1450	1450	
5°	1449	1448	1443	1435	1430	137
15°	1365	1369	1365	1359	1350	385
25°	1213	1222	1228	1219	1208	555
35°	975	989	1034	1039	1035	611
45°	755	768	793	829	834	583
55°	529	538	564	595	612	472
65°	310	318	337	361	382	307
75°	124	131	140	147	156	136
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1450.5	1450.5	1450.5	1450.5	1450.5
2.5°	1454.4	1455.0	1451.6	1442.7	1437.1
5°	1448.8	1448.3	1442.7	1434.9	1430.5
7.5°	1432.7	1433.8	1432.1	1421.0	1414.9
10°	1417.1	1417.6	1413.2	1404.3	1397.0
12.5°	1397.0	1396.5	1390.3	1385.9	1374.2
15°	1365.3	1368.6	1365.3	1359.1	1349.7
17.5°	1334.6	1334.6	1336.8	1326.3	1319.0
20°	1300.1	1301.7	1301.7	1293.4	1285.0
22.5°	1259.9	1265.0	1266.6	1257.7	1247.7
25°	1212.6	1222.0	1227.6	1218.7	1208.1
27.5°	1155.2	1169.7	1186.4	1179.7	1168.0
30°	1091.1	1112.3	1140.1	1134.6	1126.2
32.5°	1030.4	1051.5	1090.0	1087.7	1083.3
35°	975.2	988.6	1033.7	1039.3	1035.4
37.5°	922.8	935.1	977.4	990.2	986.9
40°	867.6	881.0	914.4	937.3	938.4
42.5°	813.0	825.8	853.1	886.0	886.0
45°	755.1	767.9	793.0	829.2	833.6
47.5°	698.2	711.6	736.1	772.3	779.6
50°	642.5	654.8	679.3	714.4	725.5
52.5°	584.6	597.9	621.9	654.2	670.4
55°	528.8	537.7	563.9	595.1	612.4
57.5°	470.9	479.2	508.8	535.5	553.3
60°	415.2	425.7	448.6	475.9	496.5
62.5°	361.7	372.8	392.3	416.3	439.7
65°	309.8	318.2	337.1	361.1	381.7
67.5°	259.7	266.9	285.9	302.6	324.3
70°	209.0	218.4	232.4	248.5	262.5
72.5°	168.3	172.2	183.9	195.6	210.1
75°	124.3	131.0	140.4	147.1	155.5
77.5°	89.2	93.1	98.6	104.2	112.0
80°	59.6	61.3	66.3	67.4	73.6
82.5°	36.2	37.3	38.5	39.0	41.2
85°	19.5	19.5	19.5	18.4	18.4
87.5°	11.1	11.1	9.5	7.8	5.6
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)