

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: P556312

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-88-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: P556312
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-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

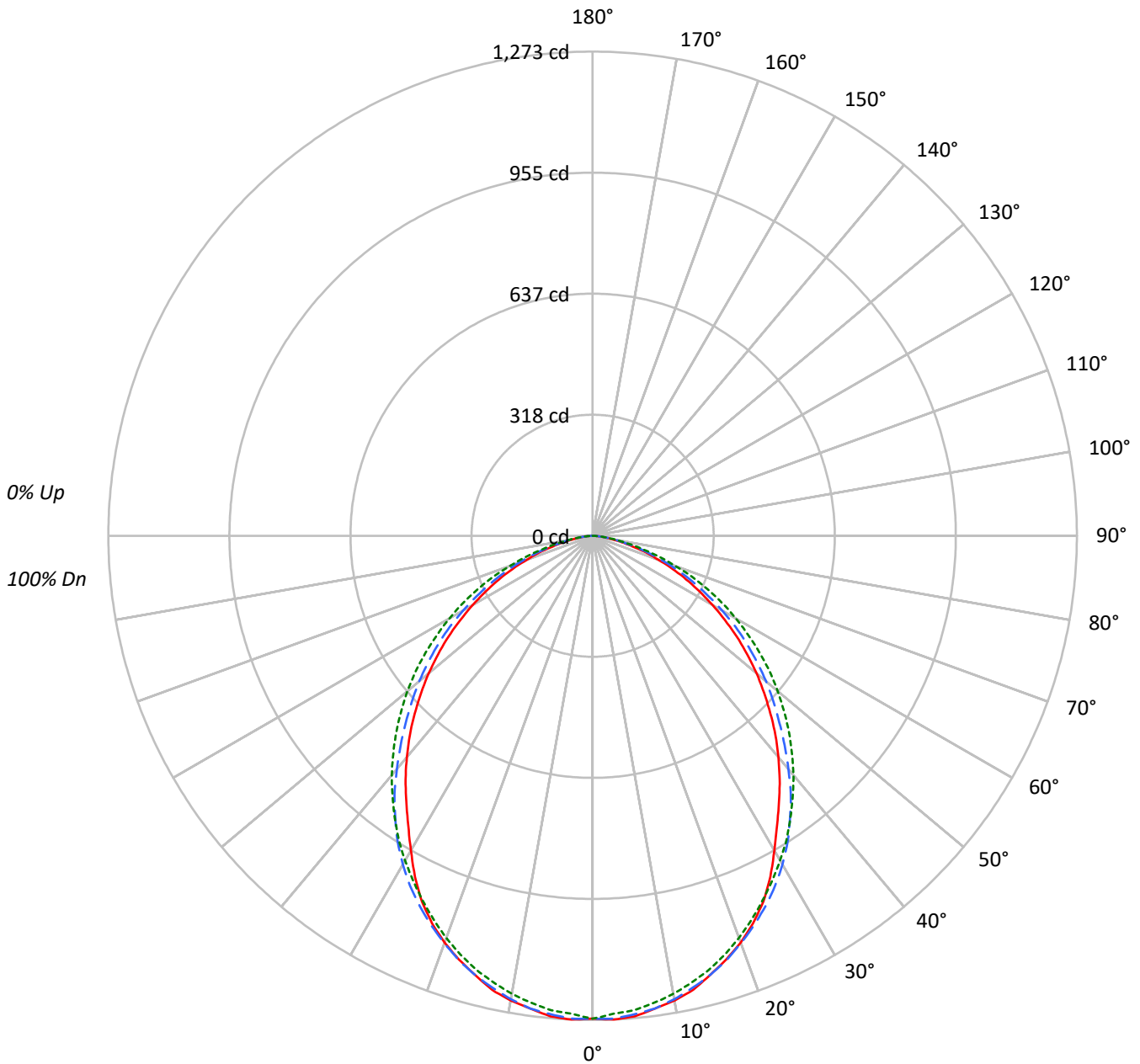
Lumens per Lamp: N/A
Luminaire Lumens: 2936.0 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 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°	3417	3417	3417
5°	3426	3411	3383
10°	3390	3380	3342
15°	3329	3329	3292
20°	3259	3263	3221
25°	3152	3191	3140
30°	2968	3101	3063
35°	2804	2973	2977
40°	2668	2812	2886
45°	2516	2641	2777
50°	2354	2489	2659
55°	2172	2316	2515
60°	1956	2113	2339
65°	1727	1879	2127
70°	1439	1600	1808
75°	1131	1278	1415
80°	809	899	998
85°	528	528	497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.5	4.1
10°-20°	335.9	11.4
20°-30°	490.8	16.7
30°-40°	557.1	19.0
40°-50°	537.8	18.3
50°-60°	443.6	15.1
60°-70°	295.4	10.1
70°-80°	132.2	4.5
80°-90°	23.7	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°	946.2	32.2
0°-40°	1503.3	51.2
0°-60°	2484.7	84.6
0°-90°	2936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1270	1270	1270	1270	1270	
5°	1268	1268	1263	1256	1252	120
15°	1195	1198	1195	1190	1182	337
25°	1062	1070	1075	1067	1058	486
35°	854	865	905	910	906	535
45°	661	672	694	726	730	510
55°	463	471	494	521	536	413
65°	271	278	295	316	334	269
75°	109	115	123	129	136	119
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1269.7	1269.7	1269.7	1269.7	1269.7
2.5°	1273.2	1273.6	1270.7	1262.9	1258.0
5°	1268.3	1267.8	1262.9	1256.1	1252.2
7.5°	1254.1	1255.1	1253.6	1243.9	1238.5
10°	1240.5	1241.0	1237.1	1229.3	1222.9
12.5°	1222.9	1222.4	1217.1	1213.2	1202.9
15°	1195.1	1198.0	1195.1	1189.7	1181.5
17.5°	1168.3	1168.3	1170.2	1161.0	1154.6
20°	1138.0	1139.5	1139.5	1132.2	1124.9
22.5°	1102.9	1107.3	1108.8	1101.0	1092.2
25°	1061.5	1069.7	1074.6	1066.8	1057.6
27.5°	1011.2	1023.9	1038.5	1032.7	1022.4
30°	955.1	973.6	998.0	993.2	985.8
32.5°	901.9	920.5	954.1	952.2	948.3
35°	853.7	865.4	904.9	909.7	906.3
37.5°	807.8	818.5	855.6	866.8	863.9
40°	759.5	771.2	800.5	820.5	821.5
42.5°	711.7	722.9	746.8	775.6	775.6
45°	661.0	672.2	694.1	725.8	729.7
47.5°	611.2	622.9	644.4	676.1	682.4
50°	562.4	573.2	594.6	625.4	635.1
52.5°	511.7	523.4	544.4	572.7	586.8
55°	462.9	470.7	493.7	521.0	536.1
57.5°	412.2	419.5	445.4	468.8	484.4
60°	363.4	372.7	392.7	416.6	434.6
62.5°	316.6	326.3	343.4	364.4	384.9
65°	271.2	278.5	295.1	316.1	334.1
67.5°	227.3	233.7	250.2	264.9	283.9
70°	182.9	191.2	203.4	217.6	229.8
72.5°	147.3	150.7	161.0	171.2	183.9
75°	108.8	114.6	122.9	128.8	136.1
77.5°	78.0	81.5	86.3	91.2	98.0
80°	52.2	53.7	58.0	59.0	64.4
82.5°	31.7	32.7	33.7	34.1	36.1
85°	17.1	17.1	17.1	16.1	16.1
87.5°	9.8	9.8	8.3	6.8	4.9
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)