

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: P556232

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-81-88-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: P556232
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-35-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

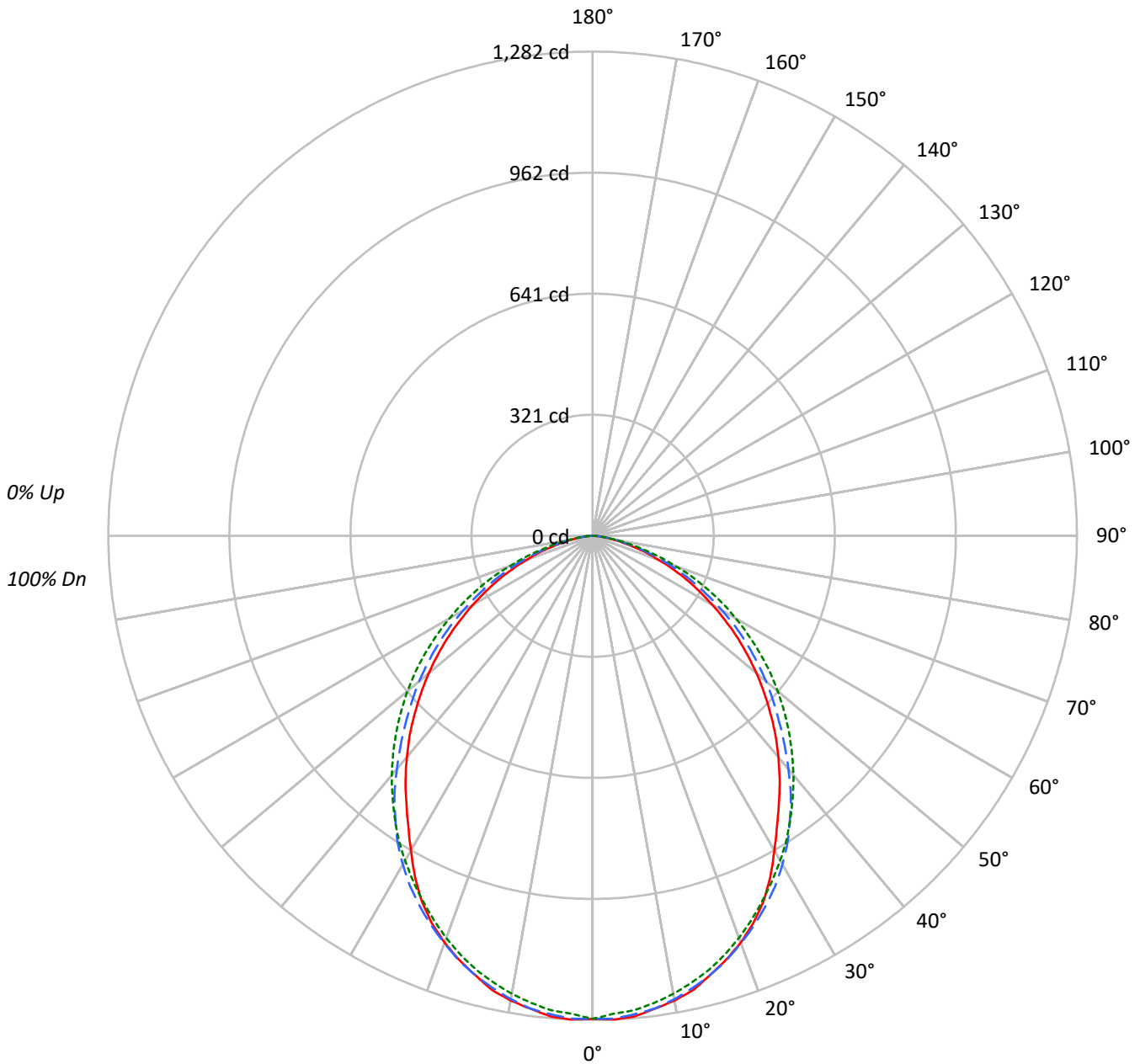
Lumens per Lamp: N/A
Luminaire Lumens: 2957.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3441	3441	3441
5°	3451	3436	3407
10°	3414	3404	3366
15°	3353	3353	3315
20°	3282	3287	3244
25°	3174	3214	3162
30°	2989	3123	3085
35°	2825	2994	2999
40°	2687	2832	2906
45°	2533	2661	2797
50°	2372	2507	2678
55°	2187	2333	2533
60°	1970	2129	2356
65°	1740	1892	2143
70°	1449	1612	1821
75°	1140	1287	1425
80°	815	907	1006
85°	531	531	500



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	4.1
10°-20°	338.3	11.4
20°-30°	494.3	16.7
30°-40°	561.1	19.0
40°-50°	541.6	18.3
50°-60°	446.8	15.1
60°-70°	297.5	10.1
70°-80°	133.1	4.5
80°-90°	23.8	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°	953.0	32.2
0°-40°	1514.0	51.2
0°-60°	2502.5	84.6
0°-90°	2957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1279	1279	1279	1279	1279	
5°	1277	1277	1272	1265	1261	121
15°	1204	1207	1204	1198	1190	339
25°	1069	1077	1082	1074	1065	490
35°	860	872	911	916	913	539
45°	666	677	699	731	735	514
55°	466	474	497	525	540	416
65°	273	280	297	318	336	271
75°	110	116	124	130	137	120
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°	1278.8	1278.8	1278.8	1278.8	1278.8
2.5°	1282.3	1282.8	1279.8	1271.9	1267.0
5°	1277.4	1276.9	1271.9	1265.1	1261.1
7.5°	1263.1	1264.1	1262.6	1252.8	1247.4
10°	1249.3	1249.8	1245.9	1238.0	1231.7
12.5°	1231.7	1231.2	1225.8	1221.8	1211.5
15°	1203.7	1206.6	1203.7	1198.3	1189.9
17.5°	1176.6	1176.6	1178.6	1169.3	1162.9
20°	1146.2	1147.7	1147.7	1140.3	1132.9
22.5°	1110.8	1115.2	1116.7	1108.8	1100.0
25°	1069.0	1077.4	1082.3	1074.4	1065.1
27.5°	1018.4	1031.2	1046.0	1040.1	1029.7
30°	961.9	980.6	1005.2	1000.3	992.9
32.5°	908.4	927.1	961.0	959.0	955.1
35°	859.8	871.5	911.3	916.3	912.8
37.5°	813.6	824.4	861.7	873.0	870.1
40°	764.9	776.7	806.2	826.3	827.3
42.5°	716.8	728.1	752.2	781.2	781.2
45°	665.7	677.0	699.1	731.0	735.0
47.5°	615.6	627.4	649.0	680.9	687.3
50°	566.5	577.3	598.9	629.8	639.7
52.5°	515.4	527.2	548.3	576.8	591.0
55°	466.2	474.1	497.2	524.7	539.9
57.5°	415.1	422.5	448.5	472.1	487.9
60°	366.0	375.3	395.5	419.6	437.7
62.5°	318.8	328.7	345.9	367.0	387.6
65°	273.2	280.5	297.2	318.4	336.5
67.5°	228.9	235.3	252.0	266.8	285.9
70°	184.2	192.6	204.9	219.1	231.4
72.5°	148.4	151.8	162.1	172.4	185.2
75°	109.6	115.5	123.8	129.7	137.1
77.5°	78.6	82.0	87.0	91.9	98.7
80°	52.6	54.0	58.5	59.4	64.9
82.5°	31.9	32.9	33.9	34.4	36.4
85°	17.2	17.2	17.2	16.2	16.2
87.5°	9.8	9.8	8.4	6.9	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)