

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: P556829

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-82-96-EDD**

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: P556829
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-LD4-1STD-40-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

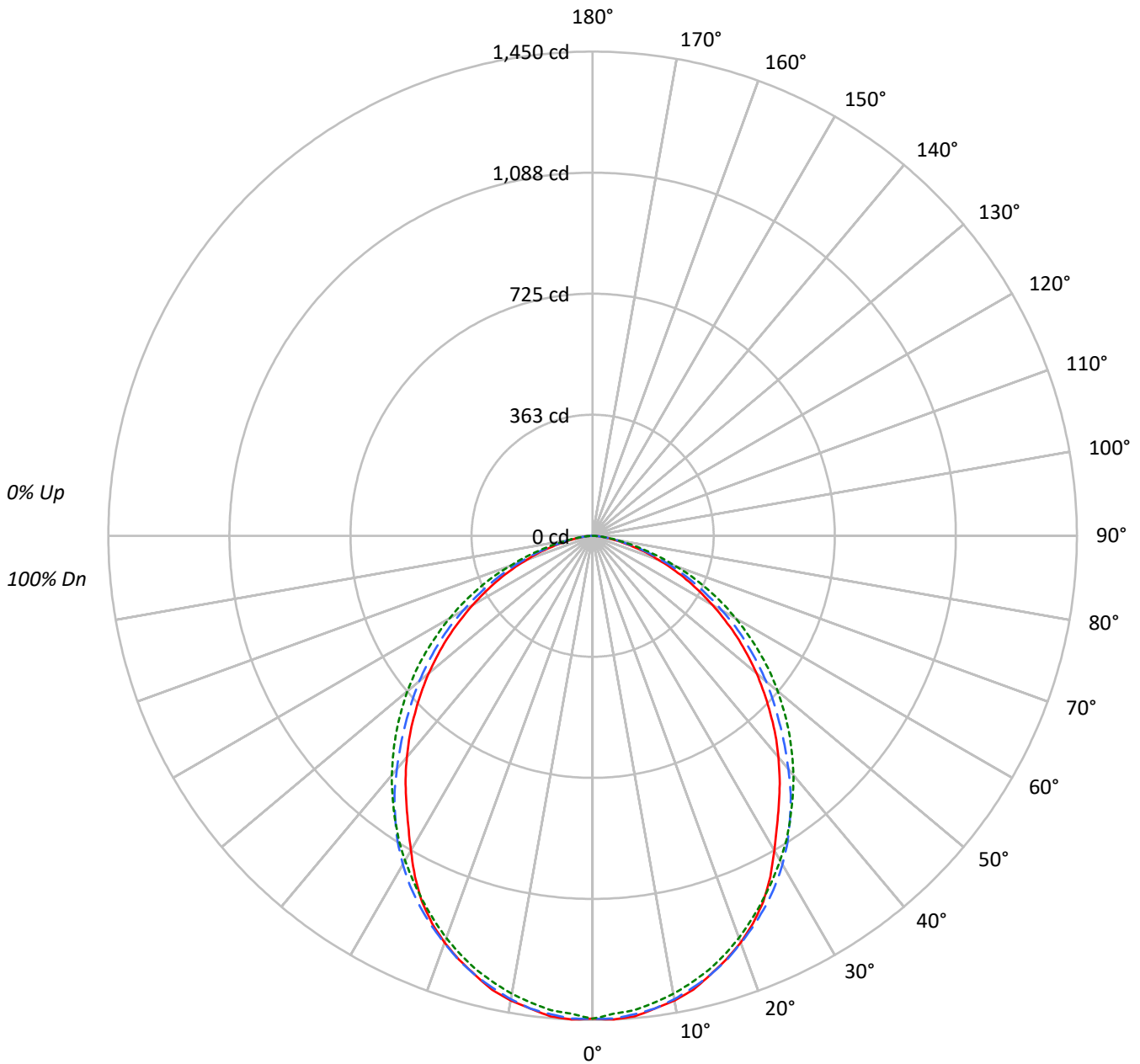
Lumens per Lamp: N/A
Luminaire Lumens: 3344.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3892	3892	3892
5°	3902	3885	3853
10°	3861	3850	3806
15°	3792	3792	3749
20°	3712	3717	3669
25°	3590	3634	3576
30°	3380	3532	3489
35°	3194	3386	3391
40°	3039	3203	3287
45°	2865	3009	3163
50°	2682	2835	3028
55°	2474	2638	2865
60°	2228	2407	2664
65°	1967	2140	2423
70°	1639	1823	2059
75°	1288	1456	1612
80°	921	1024	1136
85°	599	599	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.2	4.1
10°-20°	382.5	11.4
20°-30°	559.0	16.7
30°-40°	634.5	19.0
40°-50°	612.5	18.3
50°-60°	505.3	15.1
60°-70°	336.5	10.1
70°-80°	150.6	4.5
80°-90°	26.9	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°	1077.7	32.2
0°-40°	1712.2	51.2
0°-60°	2830.0	84.6
0°-90°	3344.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3344.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1446	1446	1446	1446	1446	
5°	1444	1444	1438	1431	1426	137
15°	1361	1364	1361	1355	1346	384
25°	1209	1218	1224	1215	1204	554
35°	972	986	1031	1036	1032	609
45°	753	766	791	827	831	581
55°	527	536	562	593	611	471
65°	309	317	336	360	381	306
75°	124	131	140	147	155	135
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1446.2	1446.2	1446.2	1446.2	1446.2
2.5°	1450.1	1450.6	1447.3	1438.4	1432.9
5°	1444.5	1444.0	1438.4	1430.6	1426.2
7.5°	1428.4	1429.5	1427.9	1416.7	1410.6
10°	1412.9	1413.4	1409.0	1400.1	1392.9
12.5°	1392.9	1392.3	1386.2	1381.7	1370.1
15°	1361.2	1364.5	1361.2	1355.1	1345.6
17.5°	1330.6	1330.6	1332.9	1322.3	1315.1
20°	1296.2	1297.9	1297.9	1289.5	1281.2
22.5°	1256.2	1261.2	1262.8	1254.0	1244.0
25°	1209.0	1218.4	1224.0	1215.1	1204.5
27.5°	1151.7	1166.2	1182.8	1176.2	1164.5
30°	1087.8	1109.0	1136.7	1131.2	1122.8
32.5°	1027.3	1048.4	1086.7	1084.5	1080.1
35°	972.3	985.6	1030.6	1036.2	1032.3
37.5°	920.1	932.3	974.5	987.3	983.9
40°	865.0	878.4	911.7	934.5	935.6
42.5°	810.6	823.4	850.6	883.4	883.4
45°	752.8	765.6	790.6	826.7	831.2
47.5°	696.2	709.5	733.9	770.0	777.3
50°	640.6	652.8	677.3	712.3	723.4
52.5°	582.8	596.1	620.0	652.3	668.4
55°	527.3	536.1	562.3	593.4	610.6
57.5°	469.5	477.8	507.3	533.9	551.7
60°	413.9	424.5	447.2	474.5	495.0
62.5°	360.6	371.7	391.1	415.0	438.4
65°	308.9	317.2	336.1	360.0	380.6
67.5°	258.9	266.1	285.0	301.7	323.4
70°	208.3	217.8	231.7	247.8	261.7
72.5°	167.8	171.7	183.3	195.0	209.5
75°	123.9	130.6	140.0	146.7	155.0
77.5°	88.9	92.8	98.3	103.9	111.7
80°	59.4	61.1	66.1	67.2	73.3
82.5°	36.1	37.2	38.3	38.9	41.1
85°	19.4	19.4	19.4	18.3	18.3
87.5°	11.1	11.1	9.4	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)