

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: P556675

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-85-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: P556675
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-30-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

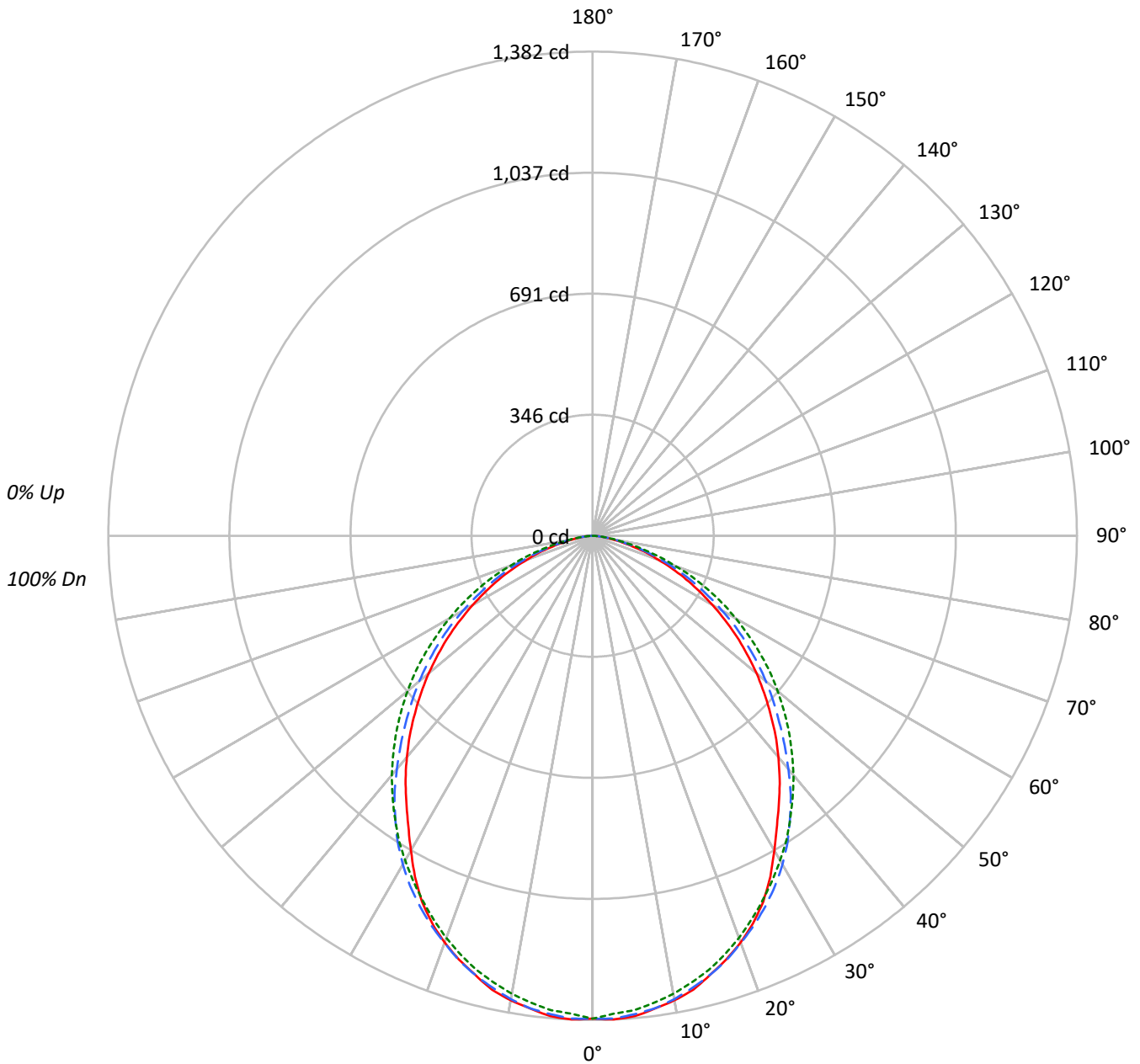
Lumens per Lamp: N/A
Luminaire Lumens: 3187.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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°	3709	3709	3709
5°	3719	3703	3672
10°	3679	3669	3627
15°	3614	3614	3573
20°	3538	3542	3497
25°	3421	3464	3409
30°	3222	3366	3325
35°	3044	3227	3232
40°	2896	3052	3132
45°	2731	2868	3014
50°	2556	2702	2886
55°	2358	2514	2730
60°	2123	2294	2539
65°	1875	2039	2309
70°	1563	1737	1962
75°	1228	1387	1536
80°	879	976	1083
85°	571	571	540



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.8	4.1
10°-20°	364.6	11.4
20°-30°	532.7	16.7
30°-40°	604.7	19.0
40°-50°	583.8	18.3
50°-60°	481.6	15.1
60°-70°	320.7	10.1
70°-80°	143.5	4.5
80°-90°	25.7	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°	1027.1	32.2
0°-40°	1631.8	51.2
0°-60°	2697.1	84.6
0°-90°	3187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3187.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1377	1376	1371	1364	1359	130
15°	1297	1300	1297	1292	1282	366
25°	1152	1161	1166	1158	1148	528
35°	927	939	982	988	984	581
45°	718	730	754	788	792	554
55°	502	511	536	566	582	448
65°	294	302	320	343	363	292
75°	118	124	133	140	148	129
85°	18	18	18	18	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1378.3	1378.3	1378.3	1378.3	1378.3
2.5°	1382.0	1382.5	1379.4	1370.9	1365.6
5°	1376.7	1376.2	1370.9	1363.5	1359.2
7.5°	1361.4	1362.4	1360.8	1350.2	1344.4
10°	1346.5	1347.1	1342.8	1334.3	1327.5
12.5°	1327.5	1326.9	1321.1	1316.9	1305.8
15°	1297.3	1300.5	1297.3	1291.5	1282.5
17.5°	1268.2	1268.2	1270.3	1260.2	1253.3
20°	1235.3	1236.9	1236.9	1229.0	1221.0
22.5°	1197.2	1202.0	1203.6	1195.1	1185.6
25°	1152.2	1161.2	1166.5	1158.0	1148.0
27.5°	1097.7	1111.4	1127.3	1121.0	1109.8
30°	1036.8	1056.9	1083.4	1078.1	1070.1
32.5°	979.1	999.2	1035.7	1033.6	1029.4
35°	926.6	939.3	982.2	987.5	983.8
37.5°	876.9	888.5	928.7	940.9	937.7
40°	824.4	837.1	868.9	890.6	891.7
42.5°	772.5	784.7	810.7	841.9	841.9
45°	717.5	729.7	753.5	787.9	792.1
47.5°	663.5	676.2	699.5	733.9	740.8
50°	610.5	622.2	645.5	678.8	689.4
52.5°	555.4	568.2	590.9	621.6	637.0
55°	502.5	511.0	535.9	565.5	581.9
57.5°	447.4	455.4	483.4	508.9	525.8
60°	394.5	404.5	426.2	452.2	471.8
62.5°	343.6	354.2	372.8	395.5	417.8
65°	294.4	302.3	320.3	343.1	362.7
67.5°	246.7	253.6	271.6	287.5	308.2
70°	198.6	207.6	220.8	236.2	249.4
72.5°	159.9	163.6	174.7	185.9	199.6
75°	118.1	124.4	133.4	139.8	147.7
77.5°	84.7	88.4	93.7	99.0	106.4
80°	56.7	58.2	63.0	64.1	69.9
82.5°	34.4	35.5	36.5	37.1	39.2
85°	18.5	18.5	18.5	17.5	17.5
87.5°	10.6	10.6	9.0	7.4	5.3
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)