

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: P556270

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-97-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: P556270
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

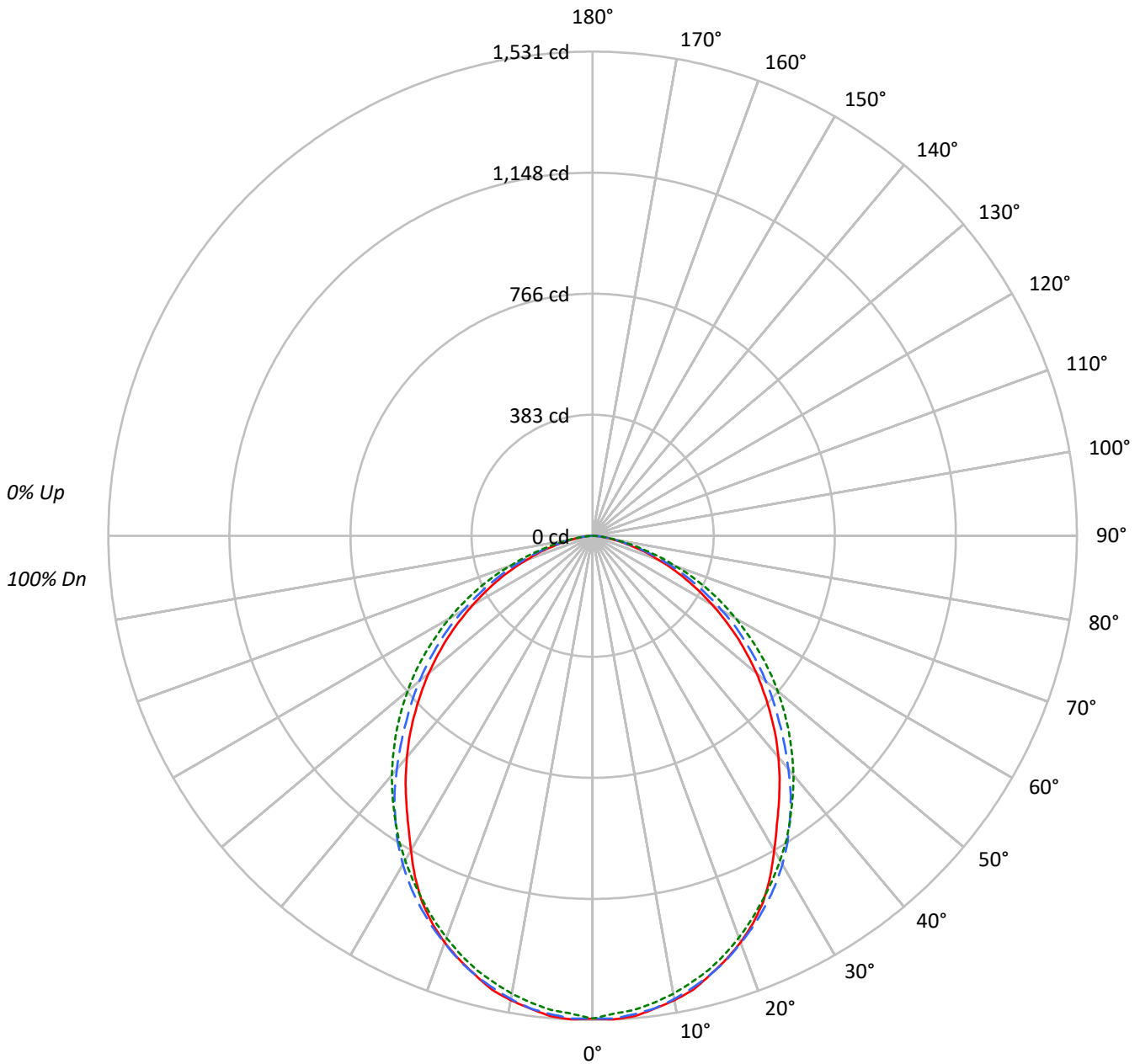
Lumens per Lamp: N/A
Luminaire Lumens: 3530.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4108	4108	4108
5°	4119	4102	4067
10°	4075	4064	4018
15°	4003	4003	3957
20°	3918	3923	3873
25°	3789	3836	3775
30°	3568	3729	3683
35°	3372	3574	3580
40°	3208	3381	3469
45°	3024	3176	3339
50°	2831	2993	3197
55°	2611	2784	3024
60°	2351	2541	2813
65°	2076	2259	2558
70°	1730	1924	2173
75°	1360	1537	1701
80°	973	1082	1199
85°	633	633	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.7	4.1
10°-20°	403.8	11.4
20°-30°	590.1	16.7
30°-40°	669.8	19.0
40°-50°	646.6	18.3
50°-60°	533.4	15.1
60°-70°	355.2	10.1
70°-80°	158.9	4.5
80°-90°	28.4	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°	1137.6	32.2
0°-40°	1807.4	51.2
0°-60°	2987.4	84.6
0°-90°	3530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1527	1527	1527	1527	1527	
5°	1525	1524	1518	1510	1506	144
15°	1437	1440	1437	1430	1420	405
25°	1276	1286	1292	1283	1272	584
35°	1026	1040	1088	1094	1090	643
45°	795	808	835	873	877	613
55°	557	566	594	626	645	497
65°	326	335	355	380	402	323
75°	131	138	148	155	164	143
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1526.6	1526.6	1526.6	1526.6	1526.6
2.5°	1530.7	1531.3	1527.8	1518.4	1512.6
5°	1524.9	1524.3	1518.4	1510.2	1505.5
7.5°	1507.9	1509.0	1507.3	1495.5	1489.1
10°	1491.4	1492.0	1487.3	1478.0	1470.3
12.5°	1470.3	1469.7	1463.3	1458.6	1446.3
15°	1436.9	1440.4	1436.9	1430.4	1420.5
17.5°	1404.6	1404.6	1407.0	1395.8	1388.2
20°	1368.3	1370.0	1370.0	1361.2	1352.4
22.5°	1326.1	1331.3	1333.1	1323.7	1313.2
25°	1276.2	1286.2	1292.0	1282.7	1271.5
27.5°	1215.8	1231.0	1248.6	1241.6	1229.3
30°	1148.3	1170.6	1200.0	1194.1	1185.3
32.5°	1084.4	1106.7	1147.2	1144.8	1140.1
35°	1026.4	1040.4	1087.9	1093.8	1089.7
37.5°	971.2	984.1	1028.7	1042.2	1038.7
40°	913.2	927.2	962.4	986.5	987.6
42.5°	855.7	869.2	897.9	932.5	932.5
45°	794.7	808.2	834.6	872.7	877.4
47.5°	734.9	748.9	774.8	812.9	820.5
50°	676.2	689.1	714.9	751.9	763.6
52.5°	615.2	629.3	654.5	688.5	705.5
55°	556.6	566.0	593.5	626.4	644.6
57.5°	495.6	504.4	535.5	563.6	582.4
60°	436.9	448.1	472.1	500.9	522.6
62.5°	380.6	392.4	412.9	438.1	462.7
65°	326.1	334.9	354.8	380.0	401.7
67.5°	273.3	280.9	300.9	318.5	341.3
70°	219.9	229.9	244.6	261.6	276.2
72.5°	177.1	181.2	193.5	205.9	221.1
75°	130.8	137.8	147.8	154.8	163.6
77.5°	93.8	97.9	103.8	109.7	117.9
80°	62.8	64.5	69.8	71.0	77.4
82.5°	38.1	39.3	40.5	41.1	43.4
85°	20.5	20.5	20.5	19.4	19.4
87.5°	11.7	11.7	10.0	8.2	5.9
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)