

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: P556258

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-85-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: P556258
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-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

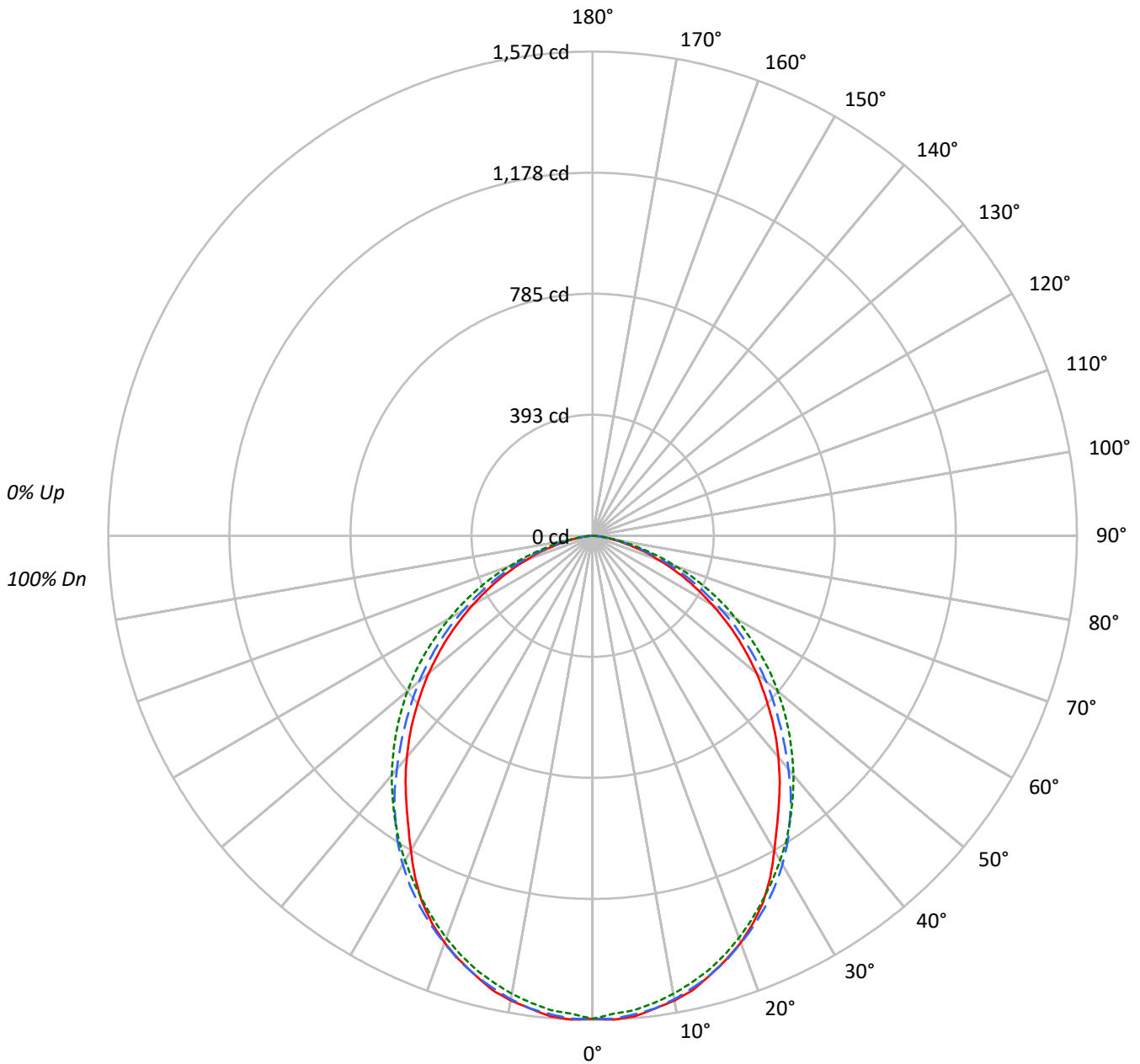
Lumens per Lamp: N/A
Luminaire Lumens: 3621.0 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4214	4214	4214
5°	4225	4207	4172
10°	4180	4169	4121
15°	4106	4106	4059
20°	4019	4025	3973
25°	3887	3935	3873
30°	3660	3825	3778
35°	3459	3666	3672
40°	3290	3468	3559
45°	3102	3258	3425
50°	2904	3070	3279
55°	2678	2856	3102
60°	2412	2606	2885
65°	2130	2318	2624
70°	1775	1974	2230
75°	1395	1576	1745
80°	998	1110	1230
85°	651	651	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.4	4.1
10°-20°	414.2	11.4
20°-30°	605.3	16.7
30°-40°	687.1	19.0
40°-50°	663.3	18.3
50°-60°	547.1	15.1
60°-70°	364.4	10.1
70°-80°	163.0	4.5
80°-90°	29.2	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°	1166.9	32.2
0°-40°	1854.0	51.2
0°-60°	3064.4	84.6
0°-90°	3621.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3621.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1566	1566	1566	1566	1566	
5°	1564	1564	1558	1549	1544	148
15°	1474	1478	1474	1467	1457	416
25°	1309	1319	1325	1316	1304	600
35°	1053	1067	1116	1122	1118	660
45°	815	829	856	895	900	629
55°	571	581	609	642	661	510
65°	334	344	364	390	412	332
75°	134	141	152	159	168	147
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1566.0	1566.0	1566.0	1566.0	1566.0
2.5°	1570.2	1570.8	1567.2	1557.6	1551.6
5°	1564.2	1563.6	1557.6	1549.1	1544.3
7.5°	1546.7	1547.9	1546.1	1534.1	1527.5
10°	1529.9	1530.5	1525.7	1516.1	1508.2
12.5°	1508.2	1507.6	1501.0	1496.2	1483.6
15°	1473.9	1477.6	1473.9	1467.3	1457.1
17.5°	1440.9	1440.9	1443.3	1431.8	1424.0
20°	1403.6	1405.4	1405.4	1396.3	1387.3
22.5°	1360.2	1365.7	1367.5	1357.8	1347.0
25°	1309.1	1319.3	1325.3	1315.7	1304.3
27.5°	1247.1	1262.8	1280.8	1273.6	1261.0
30°	1178.0	1200.8	1230.9	1224.9	1215.9
32.5°	1112.4	1135.2	1176.7	1174.3	1169.5
35°	1052.8	1067.3	1116.0	1122.0	1117.8
37.5°	996.3	1009.5	1055.2	1069.1	1065.5
40°	936.7	951.1	987.2	1011.9	1013.1
42.5°	877.7	891.6	921.1	956.6	956.6
45°	815.2	829.0	856.1	895.2	900.0
47.5°	753.8	768.3	794.7	833.8	841.7
50°	693.7	706.9	733.4	771.3	783.3
52.5°	631.1	645.5	671.4	706.3	723.7
55°	570.9	580.6	608.8	642.5	661.2
57.5°	508.4	517.4	549.3	578.1	597.4
60°	448.2	459.6	484.3	513.8	536.0
62.5°	390.4	402.5	423.5	449.4	474.7
65°	334.5	343.5	364.0	389.8	412.1
67.5°	280.3	288.2	308.6	326.7	350.1
70°	225.6	235.8	250.9	268.3	283.4
72.5°	181.7	185.9	198.5	211.2	226.8
75°	134.2	141.4	151.6	158.8	167.8
77.5°	96.3	100.5	106.5	112.5	120.9
80°	64.4	66.2	71.6	72.8	79.4
82.5°	39.1	40.3	41.5	42.1	44.5
85°	21.1	21.1	21.1	19.9	19.9
87.5°	12.0	12.0	10.2	8.4	6.0
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)