

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: P556392

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-88-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: P556392
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-50-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

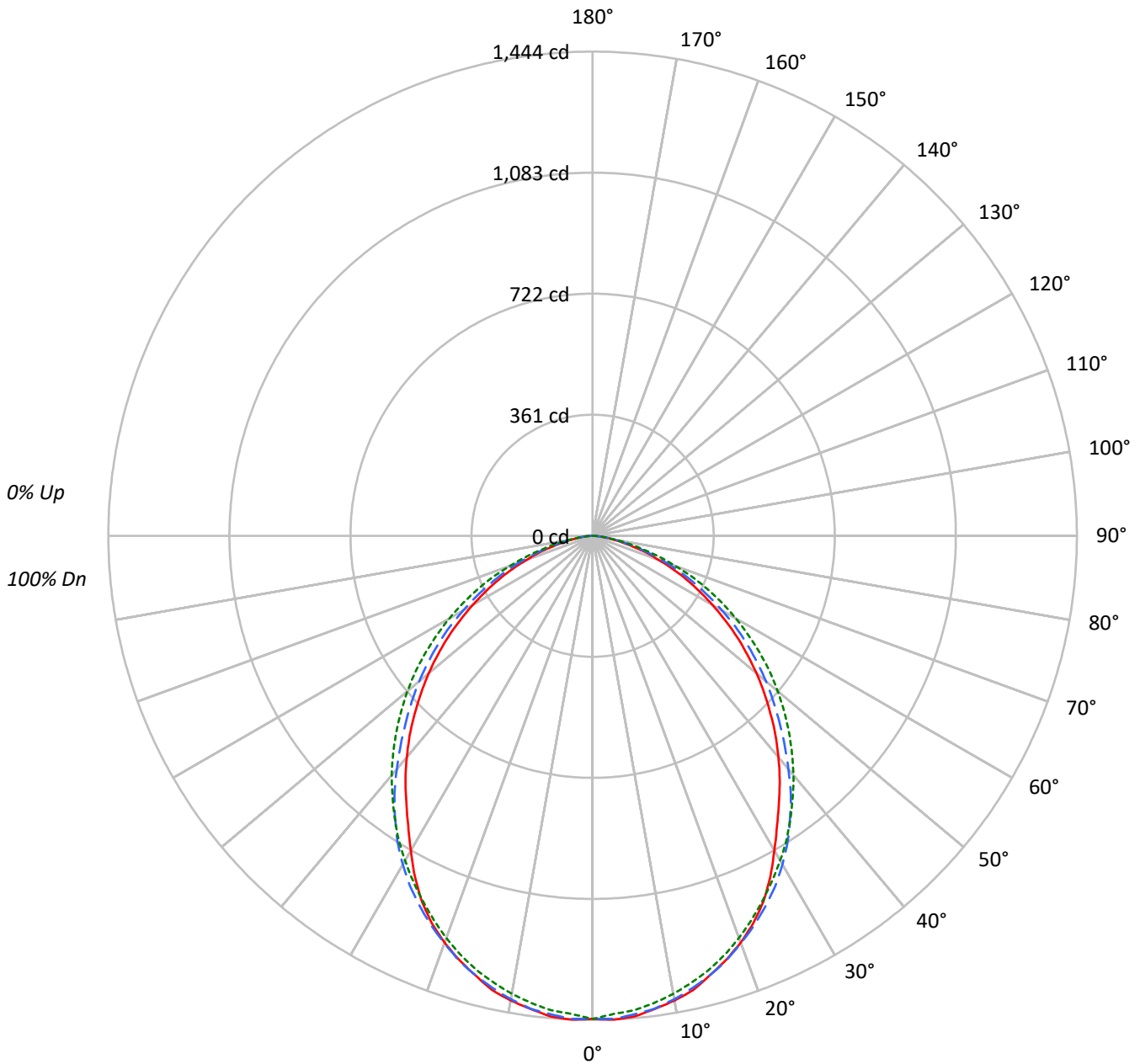
Lumens per Lamp: N/A
Luminaire Lumens: 3331.0 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3877	3877	3877
5°	3887	3870	3837
10°	3846	3835	3791
15°	3777	3777	3734
20°	3697	3702	3655
25°	3576	3620	3562
30°	3367	3518	3475
35°	3182	3372	3378
40°	3027	3190	3274
45°	2854	2997	3151
50°	2671	2824	3017
55°	2464	2628	2853
60°	2219	2398	2654
65°	1959	2132	2414
70°	1633	1816	2051
75°	1283	1450	1605
80°	917	1021	1133
85°	599	599	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	4.1
10°-20°	381.0	11.4
20°-30°	556.8	16.7
30°-40°	632.1	19.0
40°-50°	610.1	18.3
50°-60°	503.3	15.1
60°-70°	335.2	10.1
70°-80°	150.0	4.5
80°-90°	26.8	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°	1073.5	32.2
0°-40°	1705.5	51.2
0°-60°	2819.0	84.6
0°-90°	3331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1439	1438	1433	1425	1421	136
15°	1356	1359	1356	1350	1340	382
25°	1204	1214	1219	1210	1200	551
35°	968	982	1027	1032	1028	607
45°	750	763	788	824	828	579
55°	525	534	560	591	608	469
65°	308	316	335	359	379	305
75°	123	130	140	146	154	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°	1440.6	1440.6	1440.6	1440.6	1440.6
2.5°	1444.4	1445.0	1441.7	1432.8	1427.3
5°	1438.9	1438.4	1432.8	1425.1	1420.6
7.5°	1422.9	1424.0	1422.3	1411.2	1405.2
10°	1407.4	1407.9	1403.5	1394.6	1387.4
12.5°	1387.4	1386.9	1380.8	1376.4	1364.8
15°	1355.9	1359.2	1355.9	1349.8	1340.4
17.5°	1325.5	1325.5	1327.7	1317.2	1310.0
20°	1291.1	1292.8	1292.8	1284.5	1276.2
22.5°	1251.3	1256.3	1257.9	1249.1	1239.1
25°	1204.3	1213.7	1219.2	1210.3	1199.8
27.5°	1147.3	1161.6	1178.2	1171.6	1160.0
30°	1083.6	1104.6	1132.3	1126.8	1118.5
32.5°	1023.3	1044.3	1082.5	1080.3	1075.9
35°	968.5	981.8	1026.6	1032.1	1028.3
37.5°	916.5	928.7	970.7	983.4	980.1
40°	861.7	875.0	908.2	930.9	932.0
42.5°	807.5	820.2	847.3	879.9	879.9
45°	749.9	762.6	787.5	823.5	827.9
47.5°	693.4	706.7	731.1	767.1	774.2
50°	638.1	650.3	674.6	709.5	720.6
52.5°	580.5	593.8	617.6	649.7	665.8
55°	525.2	534.1	560.1	591.1	608.2
57.5°	467.6	475.9	505.3	531.8	549.6
60°	412.3	422.8	445.5	472.6	493.1
62.5°	359.2	370.2	389.6	413.4	436.7
65°	307.7	316.0	334.8	358.6	379.1
67.5°	257.9	265.1	283.9	300.5	322.1
70°	207.5	216.9	230.8	246.8	260.7
72.5°	167.1	171.0	182.6	194.3	208.6
75°	123.4	130.1	139.5	146.1	154.4
77.5°	88.5	92.4	98.0	103.5	111.2
80°	59.2	60.9	65.9	67.0	73.1
82.5°	36.0	37.1	38.2	38.7	41.0
85°	19.4	19.4	19.4	18.3	18.3
87.5°	11.1	11.1	9.4	7.7	5.5
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)