

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: P556300

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-81-96-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: P556300
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-40-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

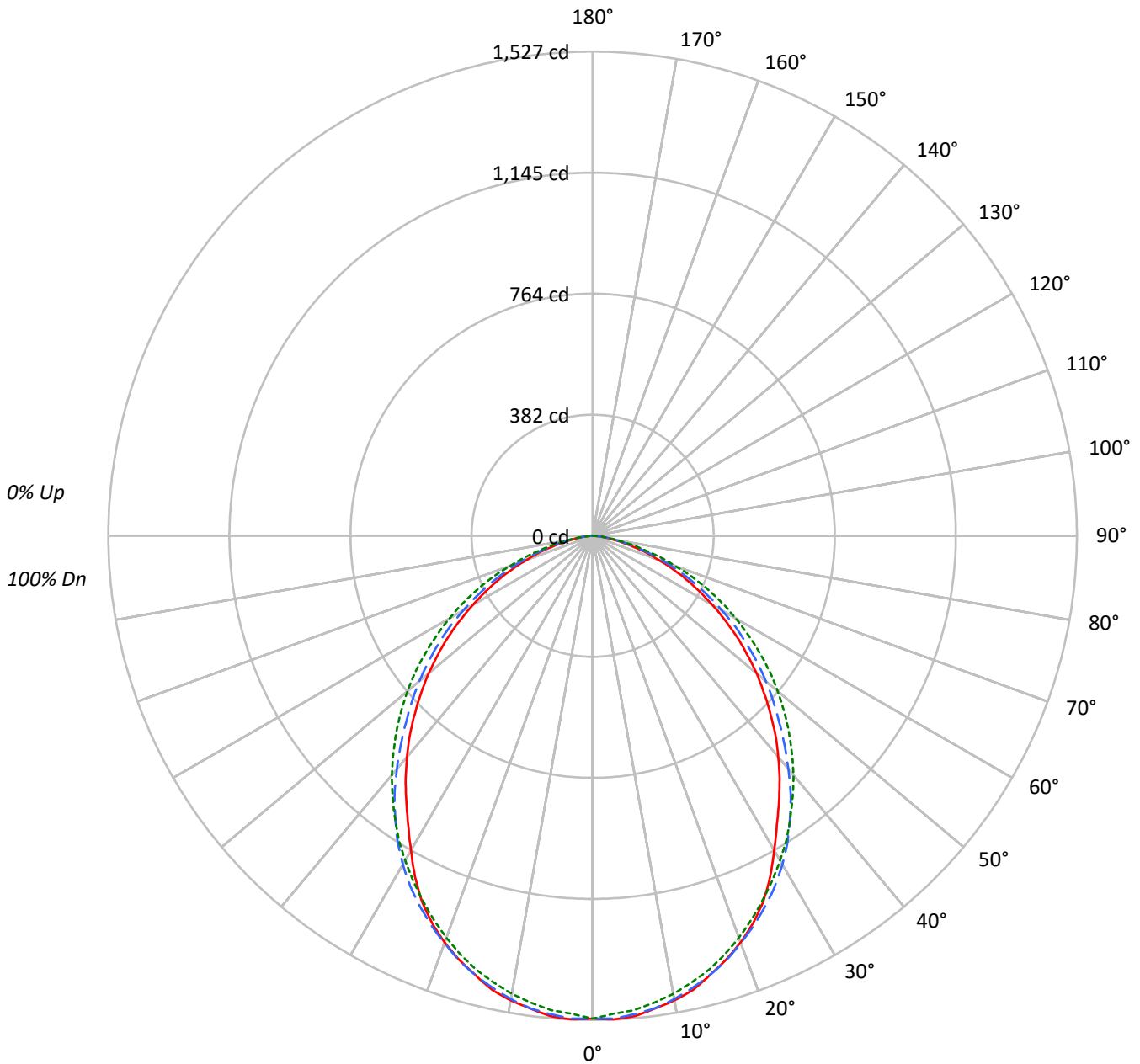
Lumens per Lamp: N/A
Luminaire Lumens: 3521.0 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4098	4098	4098
5°	4109	4091	4056
10°	4065	4054	4007
15°	3993	3993	3947
20°	3908	3913	3863
25°	3779	3826	3766
30°	3559	3719	3674
35°	3363	3565	3571
40°	3199	3372	3460
45°	3017	3168	3331
50°	2824	2985	3189
55°	2605	2777	3016
60°	2345	2534	2805
65°	2071	2253	2551
70°	1726	1919	2168
75°	1357	1533	1697
80°	970	1079	1196
85°	633	633	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	4.1
10°-20°	402.8	11.4
20°-30°	588.6	16.7
30°-40°	668.1	19.0
40°-50°	644.9	18.3
50°-60°	532.0	15.1
60°-70°	354.3	10.1
70°-80°	158.5	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°	1134.7	32.2
0°-40°	1802.8	51.2
0°-60°	2979.8	84.6
0°-90°	3521.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3521.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1521	1520	1515	1506	1502	144
15°	1433	1437	1433	1427	1417	404
25°	1273	1283	1289	1279	1268	583
35°	1024	1038	1085	1091	1087	641
45°	793	806	832	870	875	612
55°	555	564	592	625	643	496
65°	325	334	354	379	401	323
75°	130	138	147	154	163	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°	1522.7	1522.7	1522.7	1522.7	1522.7
2.5°	1526.8	1527.4	1523.9	1514.6	1508.7
5°	1521.0	1520.4	1514.6	1506.4	1501.7
7.5°	1504.0	1505.2	1503.4	1491.7	1485.3
10°	1487.6	1488.2	1483.5	1474.2	1466.6
12.5°	1466.6	1466.0	1459.6	1454.9	1442.6
15°	1433.2	1436.7	1433.2	1426.8	1416.9
17.5°	1401.1	1401.1	1403.4	1392.3	1384.7
20°	1364.8	1366.5	1366.5	1357.8	1349.0
22.5°	1322.7	1327.9	1329.7	1320.3	1309.8
25°	1272.9	1282.9	1288.7	1279.4	1268.3
27.5°	1212.7	1227.9	1245.5	1238.4	1226.1
30°	1145.4	1167.6	1196.9	1191.0	1182.3
32.5°	1081.7	1103.9	1144.2	1141.9	1137.2
35°	1023.7	1037.8	1085.2	1091.0	1086.9
37.5°	968.8	981.6	1026.1	1039.5	1036.0
40°	910.8	924.9	960.0	984.0	985.1
42.5°	853.5	867.0	895.6	930.1	930.1
45°	792.7	806.1	832.4	870.5	875.2
47.5°	733.0	747.0	772.8	810.8	818.4
50°	674.5	687.4	713.1	750.0	761.7
52.5°	613.7	627.7	652.9	686.8	703.7
55°	555.2	564.5	592.0	624.8	642.9
57.5°	494.3	503.1	534.1	562.2	580.9
60°	435.8	446.9	470.9	499.6	521.2
62.5°	379.7	391.4	411.8	437.0	461.6
65°	325.3	334.0	353.9	379.1	400.7
67.5°	272.6	280.2	300.1	317.7	340.5
70°	219.4	229.3	243.9	260.9	275.5
72.5°	176.7	180.8	193.0	205.3	220.5
75°	130.5	137.5	147.4	154.4	163.2
77.5°	93.6	97.7	103.5	109.4	117.6
80°	62.6	64.3	69.6	70.8	77.2
82.5°	38.0	39.2	40.4	40.9	43.3
85°	20.5	20.5	20.5	19.3	19.3
87.5°	11.7	11.7	9.9	8.2	5.8
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)