

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: P556793

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-88-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: P556793
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-40-UNV-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

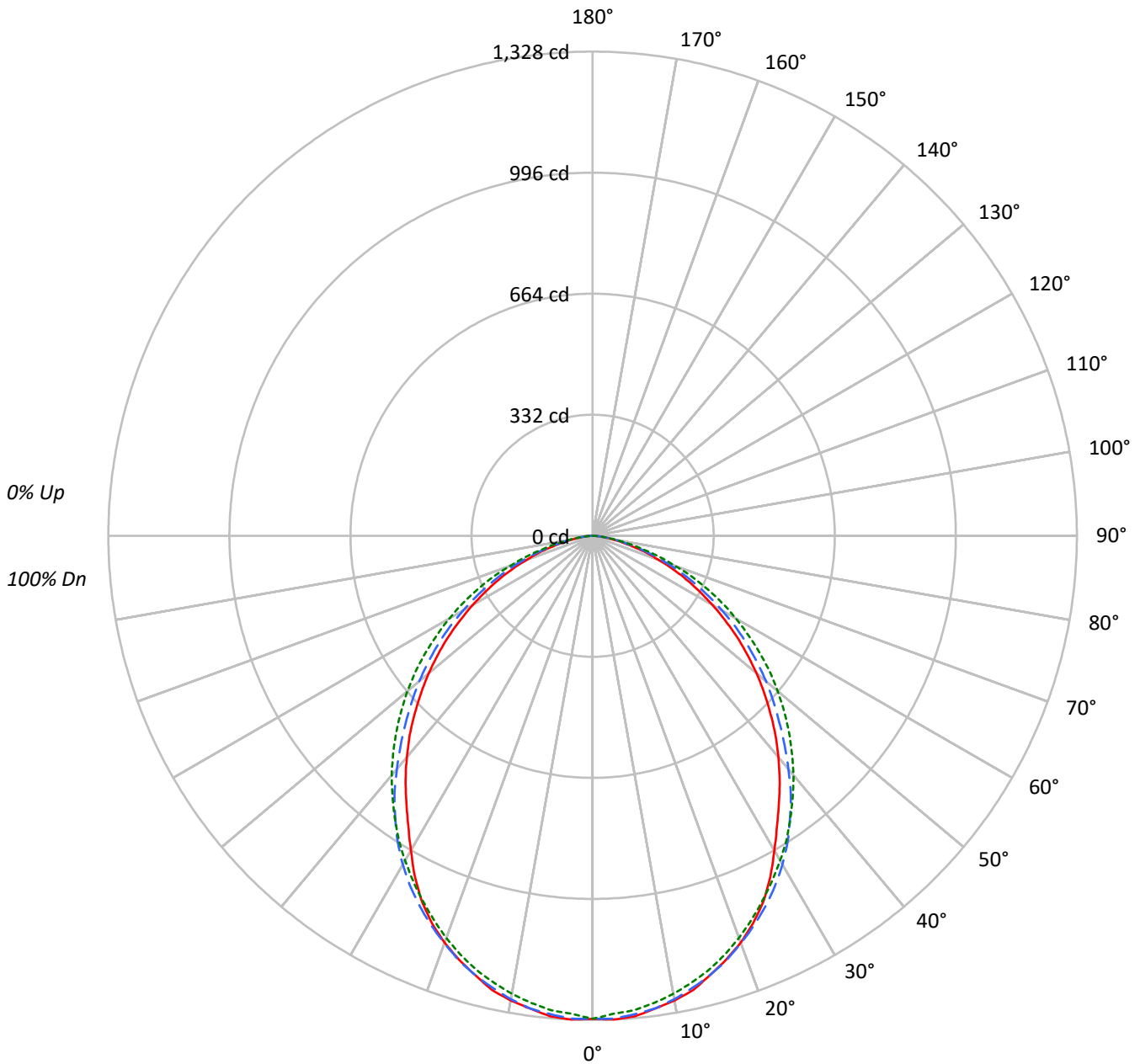
Lumens per Lamp: N/A
Luminaire Lumens: 3063.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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°	3565	3565	3565
5°	3574	3559	3529
10°	3536	3527	3486
15°	3473	3473	3434
20°	3400	3404	3361
25°	3288	3329	3276
30°	3096	3235	3196
35°	2926	3101	3106
40°	2784	2934	3010
45°	2624	2756	2897
50°	2457	2597	2774
55°	2266	2416	2624
60°	2040	2205	2440
65°	1801	1961	2220
70°	1501	1670	1886
75°	1180	1333	1476
80°	845	939	1041
85°	550	550	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.7	4.1
10°-20°	350.4	11.4
20°-30°	512.0	16.7
30°-40°	581.2	19.0
40°-50°	561.1	18.3
50°-60°	462.8	15.1
60°-70°	308.2	10.1
70°-80°	137.9	4.5
80°-90°	24.7	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°	987.1	32.2
0°-40°	1568.3	51.2
0°-60°	2592.2	84.6
0°-90°	3063.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3063.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1325	1325	1325	1325	1325	
5°	1323	1323	1318	1310	1306	125
15°	1247	1250	1247	1241	1233	351
25°	1107	1116	1121	1113	1103	507
35°	891	903	944	949	946	558
45°	690	701	724	757	761	532
55°	483	491	515	544	559	431
65°	283	291	308	330	349	281
75°	114	120	128	134	142	124
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1324.7	1324.7	1324.7	1324.7	1324.7
2.5°	1328.2	1328.7	1325.7	1317.5	1312.5
5°	1323.1	1322.6	1317.5	1310.4	1306.3
7.5°	1308.4	1309.4	1307.9	1297.7	1292.1
10°	1294.1	1294.6	1290.6	1282.4	1275.8
12.5°	1275.8	1275.3	1269.7	1265.6	1254.9
15°	1246.8	1249.9	1246.8	1241.2	1232.6
17.5°	1218.8	1218.8	1220.9	1211.2	1204.6
20°	1187.3	1188.8	1188.8	1181.2	1173.5
22.5°	1150.6	1155.2	1156.7	1148.6	1139.4
25°	1107.4	1116.0	1121.1	1113.0	1103.3
27.5°	1055.0	1068.2	1083.4	1077.3	1066.7
30°	996.4	1015.8	1041.2	1036.1	1028.5
32.5°	941.0	960.3	995.4	993.4	989.3
35°	890.6	902.8	944.0	949.1	945.5
37.5°	842.7	853.9	892.6	904.3	901.3
40°	792.4	804.6	835.1	856.0	857.0
42.5°	742.5	754.2	779.1	809.2	809.2
45°	689.6	701.3	724.2	757.2	761.3
47.5°	637.7	649.9	672.3	705.3	712.0
50°	586.8	598.0	620.3	652.4	662.6
52.5°	533.8	546.1	567.9	597.4	612.2
55°	482.9	491.1	515.0	543.5	559.3
57.5°	430.0	437.7	464.6	489.1	505.3
60°	379.1	388.8	409.7	434.6	453.4
62.5°	330.3	340.5	358.3	380.1	401.5
65°	282.9	290.6	307.9	329.8	348.6
67.5°	237.1	243.8	261.1	276.3	296.2
70°	190.8	199.5	212.2	227.0	239.7
72.5°	153.7	157.3	167.9	178.6	191.9
75°	113.5	119.6	128.2	134.3	142.0
77.5°	81.4	85.0	90.1	95.2	102.3
80°	54.5	56.0	60.6	61.6	67.2
82.5°	33.1	34.1	35.1	35.6	37.7
85°	17.8	17.8	17.8	16.8	16.8
87.5°	10.2	10.2	8.7	7.1	5.1
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)