

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: P556152

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-88-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: P556152
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-30-UNV-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

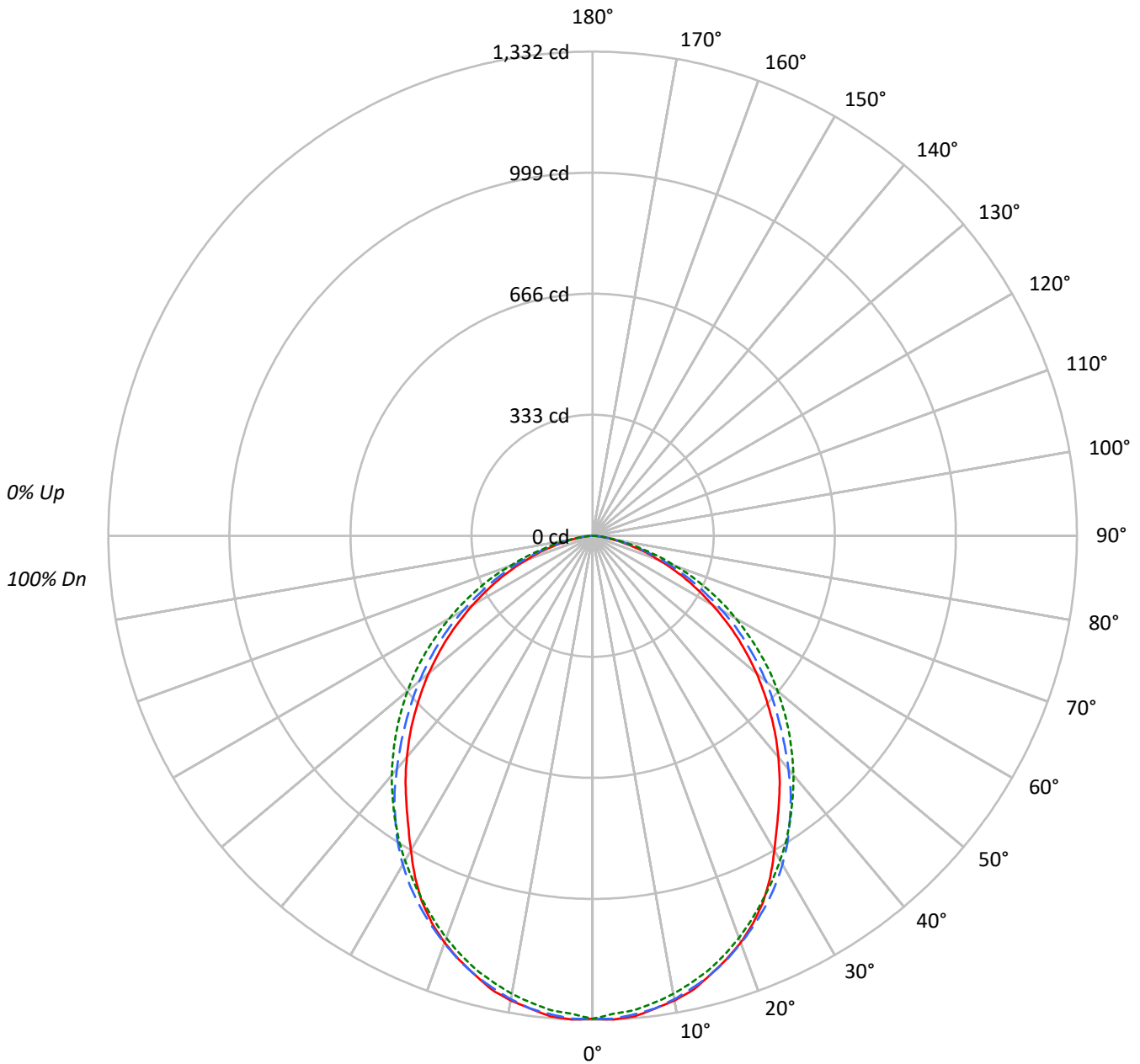
Lumens per Lamp: N/A
Luminaire Lumens: 3072.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P556152

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-80-88-EDD-90

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°	3575	3575	3575
5°	3585	3569	3539
10°	3547	3537	3496
15°	3484	3484	3444
20°	3410	3414	3371
25°	3298	3339	3285
30°	3105	3245	3205
35°	2934	3110	3115
40°	2792	2942	3019
45°	2632	2764	2906
50°	2464	2605	2782
55°	2273	2423	2632
60°	2046	2211	2448
65°	1807	1966	2226
70°	1506	1674	1891
75°	1183	1337	1481
80°	846	941	1044
85°	553	553	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	4.1
10°-20°	351.4	11.4
20°-30°	513.5	16.7
30°-40°	582.9	19.0
40°-50°	562.7	18.3
50°-60°	464.2	15.1
60°-70°	309.1	10.1
70°-80°	138.3	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°	990.0	32.2
0°-40°	1572.9	51.2
0°-60°	2599.8	84.6
0°-90°	3072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3072.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1327	1326	1321	1314	1310	126
15°	1250	1254	1250	1245	1236	353
25°	1111	1119	1124	1116	1106	509
35°	893	905	947	952	948	560
45°	692	703	726	760	764	534
55°	484	492	516	545	561	432
65°	284	291	309	331	350	281
75°	114	120	129	135	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°	1328.6	1328.6	1328.6	1328.6	1328.6
2.5°	1332.1	1332.6	1329.6	1321.4	1316.3
5°	1327.0	1326.5	1321.4	1314.3	1310.2
7.5°	1312.2	1313.2	1311.7	1301.5	1295.9
10°	1297.9	1298.4	1294.4	1286.2	1279.6
12.5°	1279.6	1279.1	1273.4	1269.4	1258.6
15°	1250.5	1253.5	1250.5	1244.9	1236.2
17.5°	1222.4	1222.4	1224.4	1214.7	1208.1
20°	1190.8	1192.3	1192.3	1184.6	1177.0
22.5°	1154.0	1158.6	1160.1	1152.0	1142.8
25°	1110.6	1119.3	1124.4	1116.2	1106.5
27.5°	1058.1	1071.3	1086.6	1080.5	1069.8
30°	999.4	1018.8	1044.3	1039.2	1031.5
32.5°	943.7	963.1	998.3	996.3	992.2
35°	893.2	905.4	946.8	951.9	948.3
37.5°	845.2	856.4	895.2	907.0	903.9
40°	794.7	806.9	837.6	858.5	859.5
42.5°	744.7	756.4	781.4	811.5	811.5
45°	691.6	703.3	726.3	759.5	763.6
47.5°	639.5	651.8	674.2	707.4	714.0
50°	588.5	599.7	622.2	654.3	664.5
52.5°	535.4	547.7	569.6	599.2	614.0
55°	484.4	492.5	516.5	545.1	560.9
57.5°	431.3	438.9	466.0	490.5	506.8
60°	380.2	389.9	410.9	435.9	454.8
62.5°	331.2	341.5	359.3	381.3	402.7
65°	283.8	291.4	308.8	330.7	349.6
67.5°	237.8	244.5	261.8	277.1	297.1
70°	191.4	200.1	212.8	227.6	240.4
72.5°	154.1	157.7	168.4	179.1	192.4
75°	113.8	119.9	128.6	134.7	142.4
77.5°	81.7	85.2	90.3	95.4	102.6
80°	54.6	56.1	60.7	61.8	67.4
82.5°	33.2	34.2	35.2	35.7	37.8
85°	17.9	17.9	17.9	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)