

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: P556180

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-86-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: P556180
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

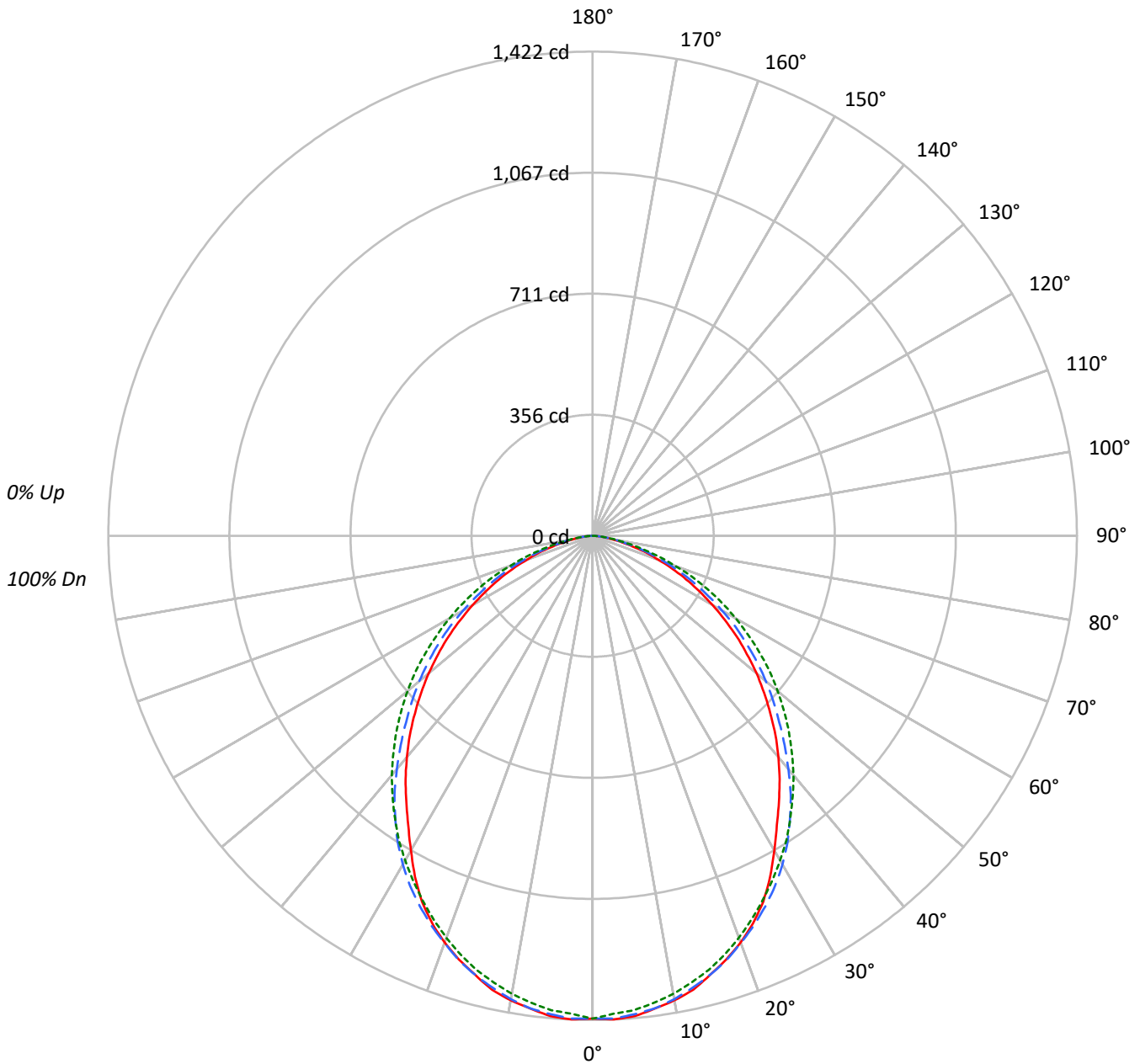
Lumens per Lamp: N/A
Luminaire Lumens: 3279.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556180

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-82-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556180

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-82-86-EDD-90

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°	3816	3816	3816
5°	3826	3810	3778
10°	3786	3775	3732
15°	3718	3718	3676
20°	3640	3644	3598
25°	3520	3564	3507
30°	3315	3463	3421
35°	3132	3320	3325
40°	2980	3140	3223
45°	2809	2950	3102
50°	2629	2780	2969
55°	2426	2586	2809
60°	2185	2361	2612
65°	1929	2099	2376
70°	1607	1788	2019
75°	1263	1428	1580
80°	903	1004	1114
85°	590	590	556



TEST NUMBER: P556180

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-82-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.5	4.1
10°-20°	375.1	11.4
20°-30°	548.1	16.7
30°-40°	622.2	19.0
40°-50°	600.6	18.3
50°-60°	495.5	15.1
60°-70°	330.0	10.1
70°-80°	147.6	4.5
80°-90°	26.4	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°	1056.7	32.2
0°-40°	1678.9	51.2
0°-60°	2775.0	84.6
0°-90°	3279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3279.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1416	1416	1410	1403	1398	134
15°	1335	1338	1335	1329	1320	376
25°	1186	1195	1200	1192	1181	543
35°	953	966	1011	1016	1012	597
45°	738	751	775	811	815	570
55°	517	526	551	582	599	461
65°	303	311	330	353	373	300
75°	122	128	137	144	152	133
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



TEST NUMBER: P556180

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-82-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1418.1	1418.1	1418.1	1418.1	1418.1
2.5°	1421.9	1422.4	1419.2	1410.5	1405.0
5°	1416.4	1415.9	1410.5	1402.8	1398.5
7.5°	1400.6	1401.7	1400.1	1389.2	1383.2
10°	1385.4	1385.9	1381.6	1372.9	1365.8
12.5°	1365.8	1365.2	1359.2	1354.9	1343.4
15°	1334.7	1338.0	1334.7	1328.7	1319.5
17.5°	1304.8	1304.8	1306.9	1296.6	1289.5
20°	1271.0	1272.6	1272.6	1264.5	1256.3
22.5°	1231.8	1236.7	1238.3	1229.6	1219.8
25°	1185.5	1194.7	1200.2	1191.5	1181.1
27.5°	1129.3	1143.5	1159.9	1153.3	1141.9
30°	1066.7	1087.4	1114.6	1109.2	1101.0
32.5°	1007.3	1028.0	1065.6	1063.4	1059.1
35°	953.4	966.5	1010.6	1016.0	1012.2
37.5°	902.2	914.2	955.6	968.1	964.8
40°	848.2	861.3	894.0	916.3	917.4
42.5°	794.8	807.4	834.1	866.2	866.2
45°	738.2	750.7	775.2	810.6	815.0
47.5°	682.6	695.7	719.7	755.1	762.2
50°	628.1	640.1	664.1	698.4	709.3
52.5°	571.5	584.6	608.0	639.6	655.4
55°	517.0	525.7	551.3	581.8	598.7
57.5°	460.3	468.5	497.4	523.5	541.0
60°	405.9	416.2	438.6	465.2	485.4
62.5°	353.6	364.5	383.5	407.0	429.8
65°	302.9	311.1	329.6	353.0	373.2
67.5°	253.9	261.0	279.5	295.8	317.1
70°	204.3	213.6	227.2	243.0	256.6
72.5°	164.5	168.3	179.8	191.2	205.4
75°	121.5	128.0	137.3	143.8	152.0
77.5°	87.2	91.0	96.4	101.9	109.5
80°	58.3	59.9	64.8	65.9	71.9
82.5°	35.4	36.5	37.6	38.1	40.3
85°	19.1	19.1	19.1	18.0	18.0
87.5°	10.9	10.9	9.3	7.6	5.4
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)