

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: P556674

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-85-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: P556674
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-30-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

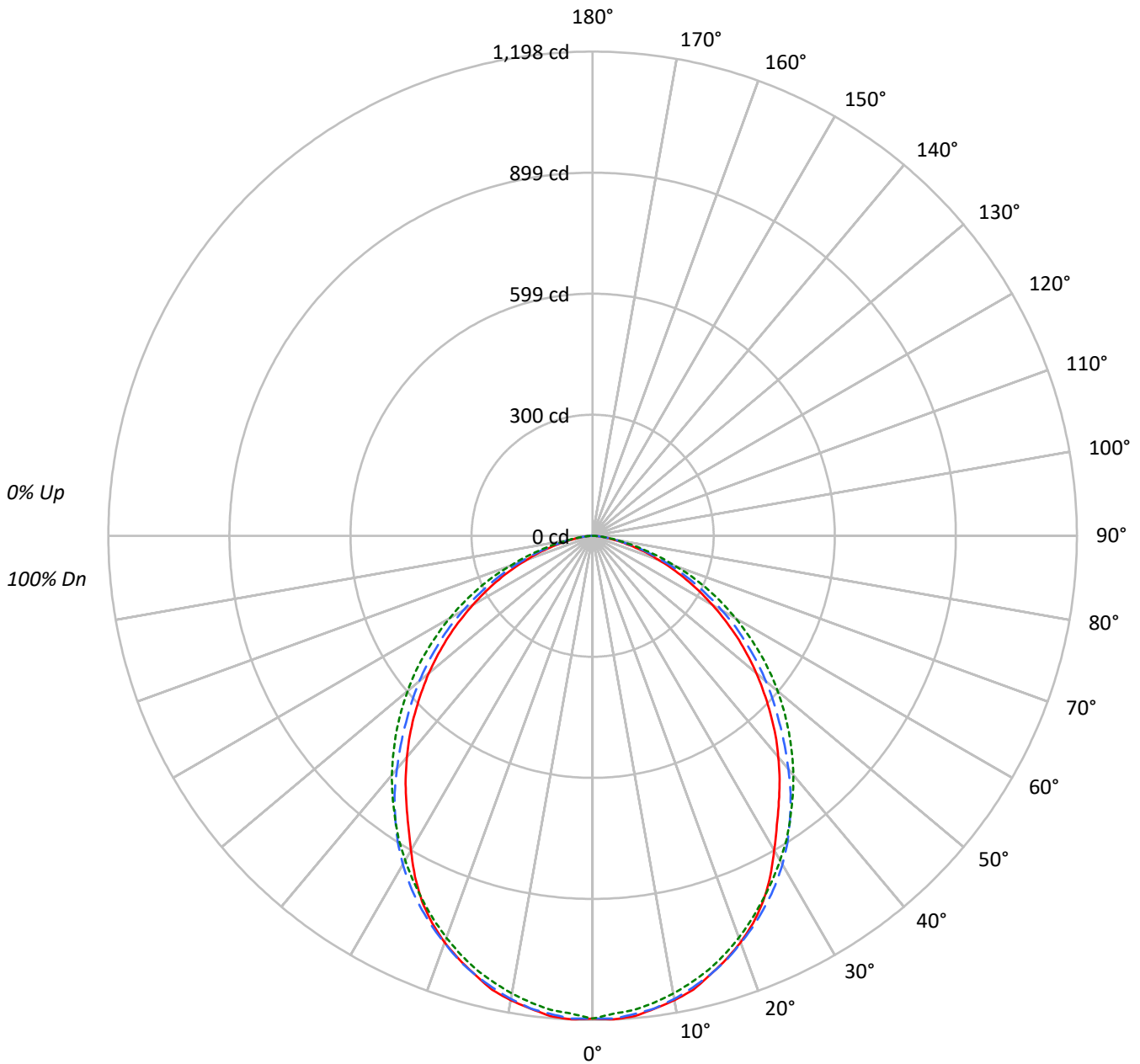
Lumens per Lamp: N/A
Luminaire Lumens: 2762.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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

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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°	3214	3214	3214
5°	3223	3209	3182
10°	3189	3180	3143
15°	3132	3132	3096
20°	3066	3070	3030
25°	2965	3002	2954
30°	2792	2917	2882
35°	2638	2796	2801
40°	2510	2645	2715
45°	2366	2485	2613
50°	2215	2342	2501
55°	2043	2179	2366
60°	1840	1988	2201
65°	1624	1768	2001
70°	1354	1506	1700
75°	1064	1202	1331
80°	761	846	939
85°	497	497	466



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	4.1
10°-20°	315.9	11.4
20°-30°	461.7	16.7
30°-40°	524.1	19.0
40°-50°	505.9	18.3
50°-60°	417.3	15.1
60°-70°	277.9	10.1
70°-80°	124.4	4.5
80°-90°	22.3	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°	890.1	32.2
0°-40°	1414.2	51.2
0°-60°	2337.5	84.6
0°-90°	2762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1194	1194	1194	1194	1194	
5°	1193	1193	1188	1182	1178	113
15°	1124	1127	1124	1119	1111	317
25°	998	1006	1011	1004	995	457
35°	803	814	851	856	853	503
45°	622	632	653	683	686	480
55°	436	443	464	490	504	389
65°	255	262	278	297	314	253
75°	102	108	116	121	128	112
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1194.5	1194.5	1194.5	1194.5	1194.5
2.5°	1197.7	1198.2	1195.4	1188.1	1183.5
5°	1193.1	1192.7	1188.1	1181.6	1178.0
7.5°	1179.8	1180.7	1179.4	1170.2	1165.1
10°	1167.0	1167.4	1163.7	1156.4	1150.4
12.5°	1150.4	1150.0	1144.9	1141.3	1131.6
15°	1124.3	1127.0	1124.3	1119.2	1111.4
17.5°	1099.0	1099.0	1100.9	1092.2	1086.2
20°	1070.6	1072.0	1072.0	1065.1	1058.2
22.5°	1037.6	1041.7	1043.1	1035.7	1027.5
25°	998.5	1006.3	1010.9	1003.6	994.9
27.5°	951.3	963.2	977.0	971.5	961.8
30°	898.5	915.9	938.9	934.3	927.4
32.5°	848.5	865.9	897.6	895.8	892.1
35°	803.1	814.1	851.2	855.8	852.6
37.5°	759.9	770.0	804.9	815.4	812.7
40°	714.5	725.5	753.0	771.9	772.8
42.5°	669.5	680.1	702.6	729.6	729.6
45°	621.8	632.4	653.0	682.8	686.5
47.5°	575.0	586.0	606.2	636.0	642.0
50°	529.1	539.2	559.4	588.3	597.5
52.5°	481.4	492.4	512.1	538.7	552.0
55°	435.5	442.8	464.4	490.1	504.3
57.5°	387.8	394.6	419.0	441.0	455.7
60°	341.9	350.6	369.4	391.9	408.9
62.5°	297.8	307.0	323.1	342.8	362.1
65°	255.1	262.0	277.6	297.4	314.3
67.5°	213.8	219.8	235.4	249.2	267.1
70°	172.1	179.9	191.4	204.7	216.1
72.5°	138.6	141.8	151.4	161.1	173.0
75°	102.3	107.8	115.6	121.1	128.0
77.5°	73.4	76.6	81.2	85.8	92.2
80°	49.1	50.5	54.6	55.5	60.6
82.5°	29.8	30.7	31.7	32.1	34.0
85°	16.1	16.1	16.1	15.1	15.1
87.5°	9.2	9.2	7.8	6.4	4.6
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)