

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: P27113

Luminaire Tested: **FUSL-N12-2-LD4-2HI-40-UNV-80/86**

Test Date: 11/22/15



**Test Information**

Test Method: LM-79-08  
Report Number: P27113  
Test Lab: INNOVATION CENTER-P2  
Test Date: 11/22/15  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FUSL-N12-2-LD4-2HI-40-UNV-80/86  
Description: FAILSAFE LED 2' FUSL SLOPE SIDED CLAMSHELL CORRECTIONAL  
FIXTURE  
Light Source: (84) NICHIA 4000K LEDS  
2UT217042A8404A  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER  
OSRAM OT50W

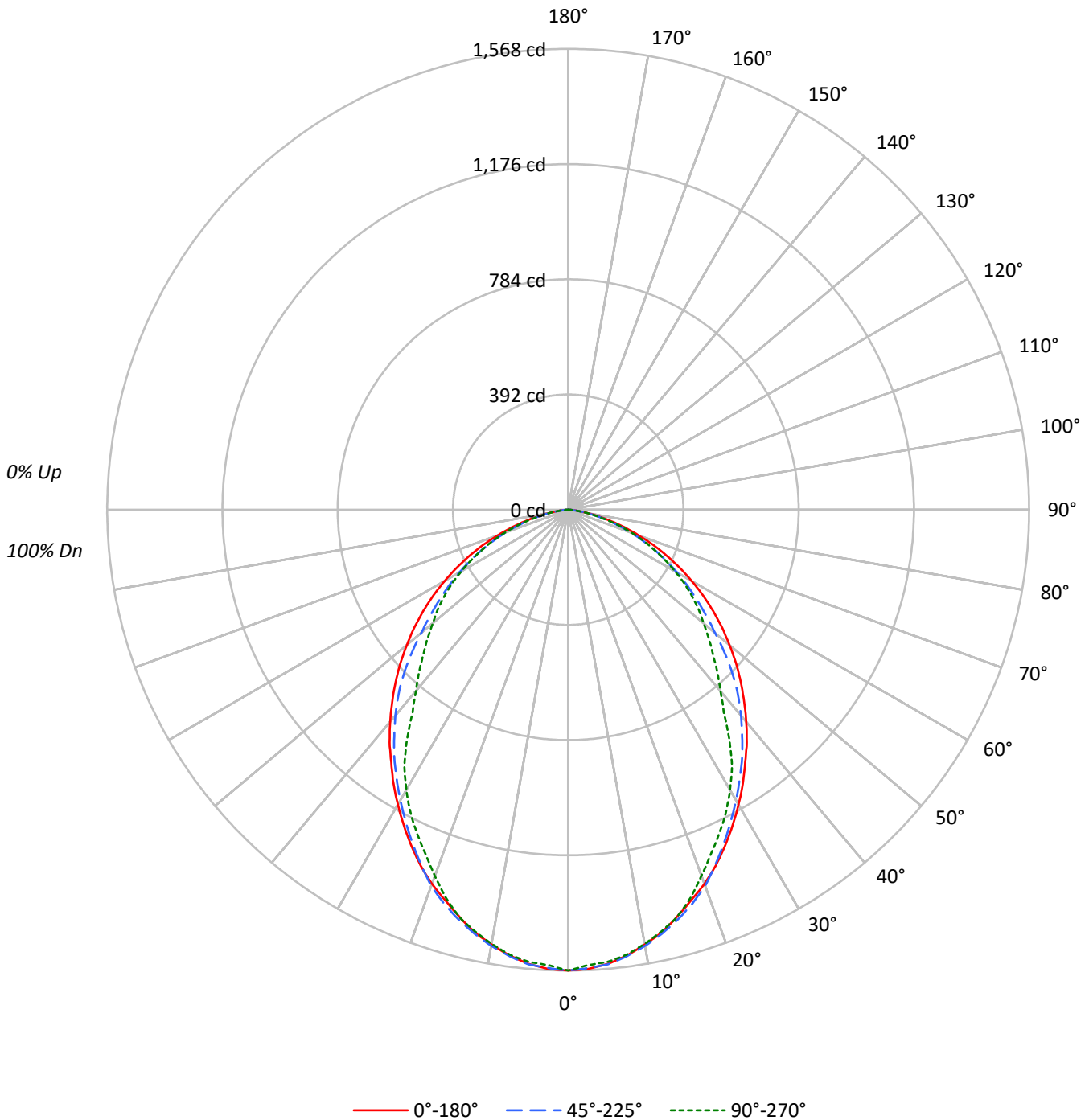
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3360.8 lumens  
Efficiency: N/A  
Efficacy: 74.9 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.07 / 1.21  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.9  
Input Voltage (V): 120.05  
Input Current (A<sub>in</sub>): 0.37560  
Voltage Rise (V): NR  
Power Factor: 0.9994  
Total Harmonic Distortion (THDi): 7.88%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 24 HR  
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				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	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	79	76	74
3	93	83	75	69	90	81	74	69	78	72	67	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	59	70	64	58	68	62	58	66	61	57	55
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48
6	73	60	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	36	47	41	36	46	40	36	34
9	59	47	39	33	58	46	38	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	30	55	43	35	30	42	35	30	41	35	30	40	34	30	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8439	8439	8439
5°	8379	8390	8341
10°	8208	8236	8197
15°	7984	8040	7990
20°	7761	7801	7594
25°	7494	7441	7221
30°	7203	7091	6842
35°	6892	6774	6281
40°	6618	6421	5656
45°	6317	6020	5297
50°	5995	5459	5032
55°	5649	5011	4832
60°	5231	4607	4510
65°	4699	4126	4113
70°	4013	3541	3603
75°	3161	2807	2870
80°	2139	2015	1953
85°	1112	1235	1235



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.5	4.4
10°-20°	404.6	12.0
20°-30°	574.0	17.1
30°-40°	634.8	18.9
40°-50°	595.2	17.7
50°-60°	491.0	14.6
60°-70°	334.9	10.0
70°-80°	152.9	4.5
80°-90°	27.1	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°	1125.1	33.5
0°-40°	1759.9	52.4
0°-60°	2846.0	84.7
0°-90°	3360.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3360.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1568	1568	1568	1568	1568	
5°	1551	1552	1553	1548	1544	146
15°	1433	1440	1443	1441	1434	404
25°	1262	1269	1253	1227	1216	581
35°	1049	1045	1031	990	956	658
45°	830	819	791	713	696	640
55°	602	589	534	514	515	538
65°	369	359	324	322	323	365
75°	152	148	135	137	138	164
85°	18	20	20	20	20	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1568	1568	1568	1568	1568
2.5°	1564	1564	1561	1556	1551
5°	1551	1552	1553	1548	1544
7.5°	1530	1533	1532	1531	1527
10°	1502	1508	1507	1502	1500
12.5°	1473	1479	1477	1473	1469
15°	1433	1440	1443	1441	1434
17.5°	1393	1404	1405	1398	1384
20°	1355	1361	1362	1339	1326
22.5°	1311	1317	1308	1284	1268
25°	1262	1269	1253	1227	1216
27.5°	1211	1217	1197	1176	1162
30°	1159	1160	1141	1120	1101
32.5°	1106	1103	1086	1058	1037
35°	1049	1045	1031	990	956
37.5°	998	988	972	914	870
40°	942	932	914	831	805
42.5°	886	875	855	769	751
45°	830	819	791	713	696
47.5°	775	762	723	660	649
50°	716	705	652	608	601
52.5°	660	647	591	561	560
55°	602	589	534	514	515
57.5°	544	531	481	466	470
60°	486	474	428	420	419
62.5°	427	416	375	371	373
65°	369	359	324	322	323
67.5°	312	304	274	274	278
70°	255	249	225	227	229
72.5°	202	197	178	181	184
75°	152	148	135	137	138
77.5°	108	105	98	99	97
80°	69	69	65	64	63
82.5°	40	39	38	38	37
85°	18	20	20	20	20
87.5°	6	8	9	9	9
90°	0	0	0	0	0

(END OF REPORT)