

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560246

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2HI-40-UNV-80-87-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2978.0 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

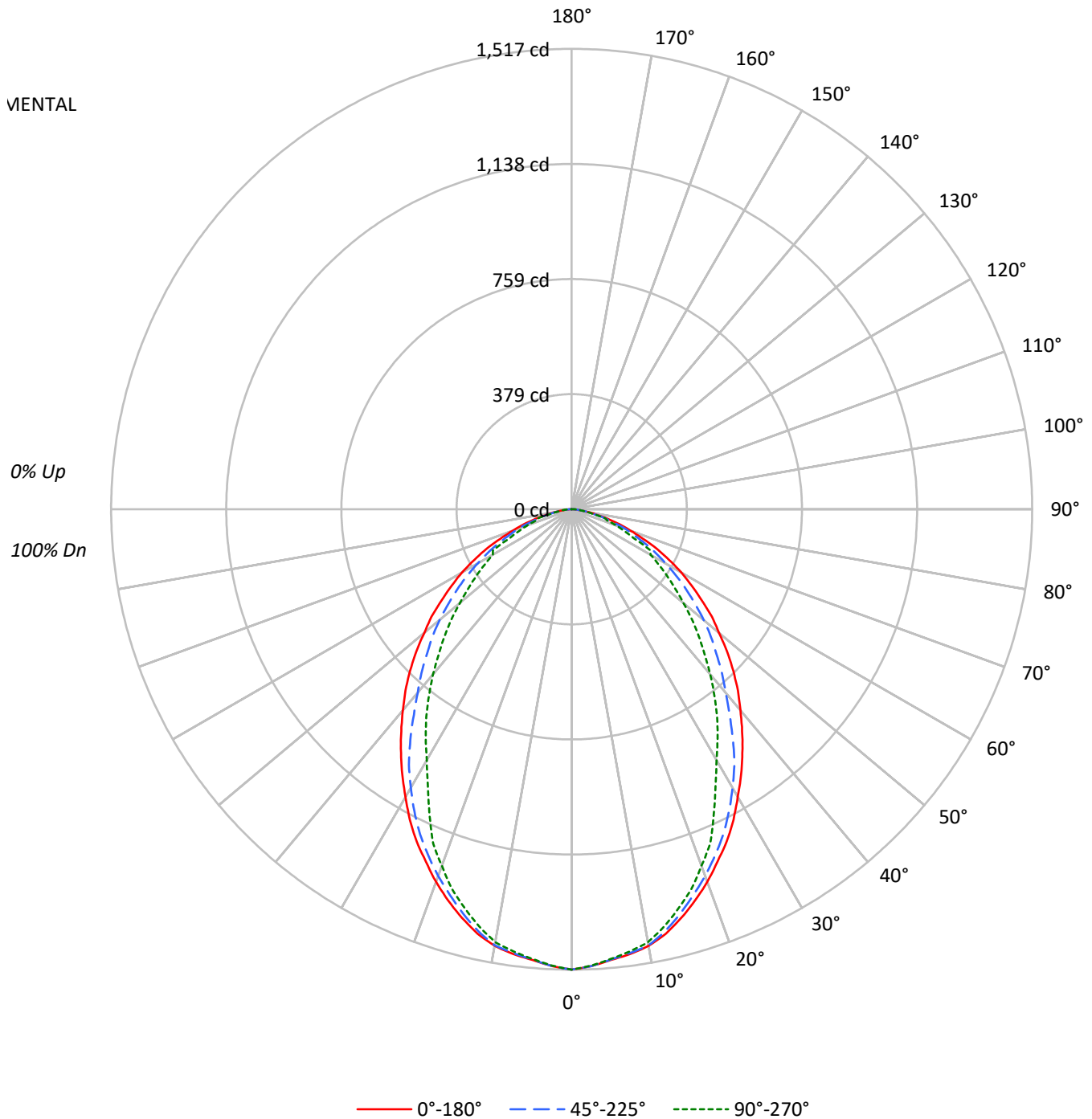
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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									100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87									87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75									75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65									65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56									56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50									50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44									44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40									40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36									36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33									33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30									30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8164	8164	8164
5°	8053	8044	8034
10°	7983	7974	7917
15°	7768	7690	7583
20°	7483	7363	7161
25°	7175	7019	6581
30°	6801	6582	5929
35°	6441	6084	5485
40°	6074	5545	4990
45°	5726	5125	4512
50°	5301	4757	4023
55°	4904	4312	3604
60°	4493	3851	3228
65°	3953	3372	2859
70°	3256	2952	2428
75°	2589	2260	2371
80°	1739	1630	1522
85°	1081	1297	1519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5726 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.2	4.7
10°-20°	387.5	13.0
20°-30°	536.5	18.0
30°-40°	572.1	19.2
40°-50°	521.9	17.5
50°-60°	408.9	13.7
60°-70°	266.5	8.9
70°-80°	118.0	4.0
80°-90°	25.3	0.9
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°	1065.3	35.8
0°-40°	1637.3	55.0
0°-60°	2568.1	86.2
0°-90°	2978.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2978.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1517	1517	1517	1517	1517	
5°	1491	1489	1489	1487	1487	141
15°	1394	1394	1380	1366	1361	392
25°	1208	1201	1182	1140	1108	555
35°	980	973	926	856	835	613
45°	752	737	673	617	593	580
55°	523	507	460	405	384	469
65°	310	293	265	270	224	306
75°	124	116	109	104	114	133
85°	18	19	21	23	25	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1517.0	1517.0	1517.0	1517.0	1517.0
2.5°	1506.4	1506.4	1506.4	1504.7	1504.7
5°	1490.6	1488.9	1488.9	1487.1	1487.1
7.5°	1478.4	1476.6	1474.9	1473.1	1469.6
10°	1460.8	1460.8	1459.1	1450.3	1448.6
12.5°	1432.8	1431.0	1424.0	1411.7	1408.2
15°	1394.2	1394.2	1380.2	1366.1	1360.9
17.5°	1352.1	1350.4	1332.8	1318.8	1311.8
20°	1306.5	1303.0	1285.5	1262.7	1250.4
22.5°	1255.7	1255.7	1234.6	1204.8	1192.5
25°	1208.3	1201.3	1182.0	1139.9	1108.3
27.5°	1153.9	1143.4	1122.4	1062.7	1025.9
30°	1094.3	1089.0	1059.2	982.1	954.0
32.5°	1038.2	1029.4	997.9	917.2	894.4
35°	980.3	973.3	926.0	855.8	834.8
37.5°	922.4	913.7	854.1	797.9	771.6
40°	864.6	854.1	789.2	738.3	710.2
42.5°	810.2	796.2	733.0	678.7	647.1
45°	752.3	736.6	673.4	617.3	592.8
47.5°	694.5	680.4	622.6	564.7	536.6
50°	633.1	620.8	568.2	510.3	480.5
52.5°	582.2	562.9	512.1	454.2	429.7
55°	522.6	506.8	459.5	405.1	384.1
57.5°	468.2	452.5	408.6	357.8	340.2
60°	417.4	394.6	357.8	313.9	299.9
62.5°	361.3	343.7	312.2	275.3	292.9
65°	310.4	292.9	264.8	270.1	224.5
67.5°	254.3	245.5	221.0	196.4	189.4
70°	206.9	196.4	187.6	161.3	154.3
72.5°	164.8	154.3	142.0	128.0	122.8
75°	124.5	115.7	108.7	103.5	114.0
77.5°	85.9	82.4	77.2	71.9	70.1
80°	56.1	54.4	52.6	50.9	49.1
82.5°	33.3	33.3	33.3	33.3	33.3
85°	17.5	19.3	21.0	22.8	24.6
87.5°	10.5	10.5	12.3	14.0	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)