

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: P560244

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560244
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-80-86-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3077.0 lumens
Efficiency: N/A
Efficacy: 71.2 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

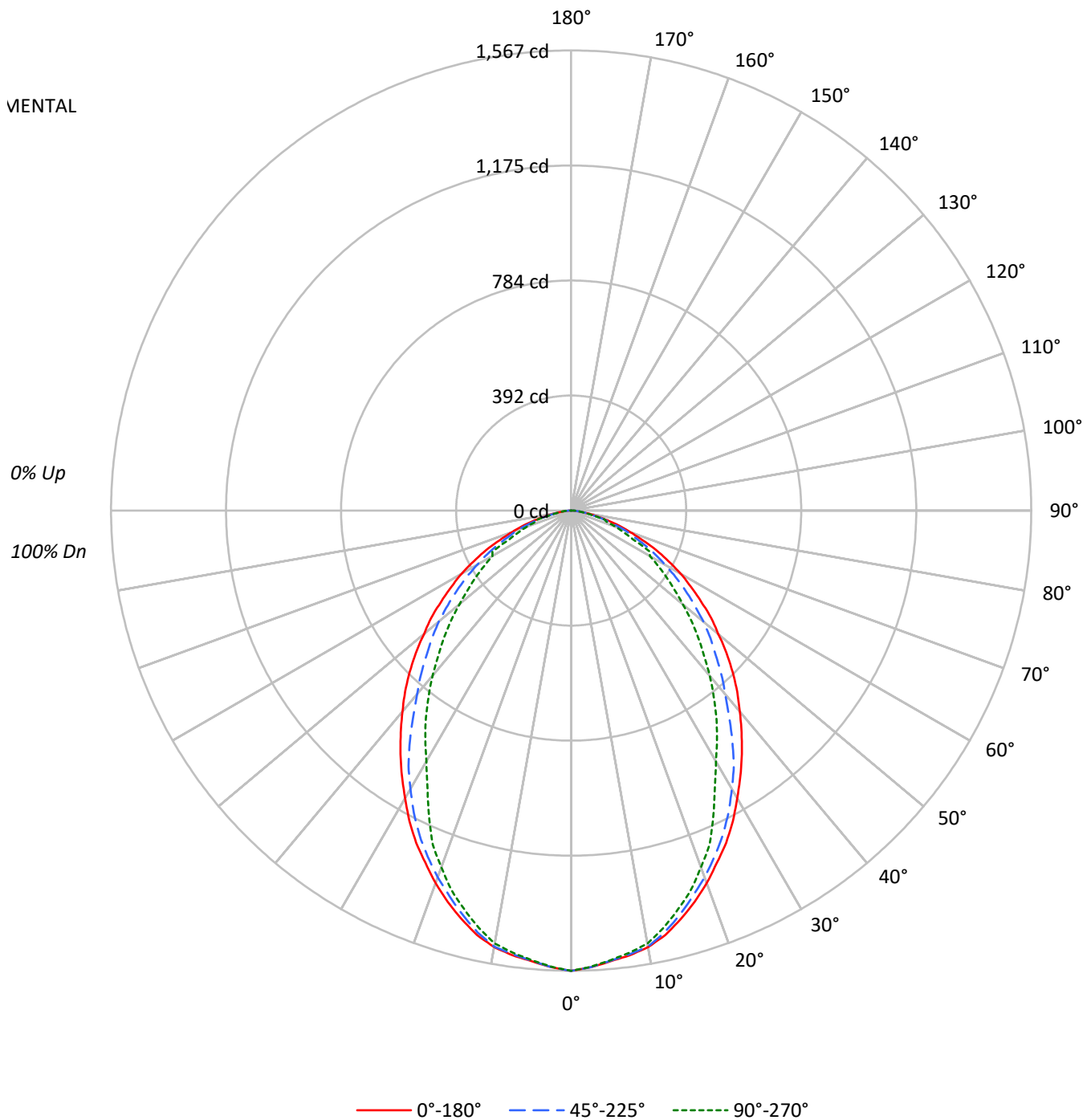
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8436	8436	8436
5°	8321	8311	8302
10°	8249	8239	8179
15°	8026	7945	7835
20°	7731	7607	7400
25°	7414	7252	6801
30°	7027	6801	6126
35°	6655	6286	5667
40°	6276	5729	5156
45°	5916	5296	4662
50°	5477	4916	4157
55°	5067	4454	3723
60°	4642	3978	3336
65°	4084	3484	2953
70°	3364	3051	2510
75°	2676	2335	2450
80°	1798	1686	1571
85°	1118	1340	1568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5916 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.9	4.7
10°-20°	400.4	13.0
20°-30°	554.3	18.0
30°-40°	591.1	19.2
40°-50°	539.2	17.5
50°-60°	422.5	13.7
60°-70°	275.3	8.9
70°-80°	122.0	4.0
80°-90°	26.2	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°	1100.7	35.8
0°-40°	1691.8	55.0
0°-60°	2653.5	86.2
0°-90°	3077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1567	1567	1567	1567	1567	
5°	1540	1538	1538	1537	1537	146
15°	1440	1440	1426	1412	1406	405
25°	1248	1241	1221	1178	1145	573
35°	1013	1006	957	884	862	633
45°	777	761	696	638	612	599
55°	540	524	475	419	397	484
65°	321	303	274	279	232	316
75°	129	120	112	107	118	138
85°	18	20	22	24	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1567.4	1567.4	1567.4	1567.4	1567.4
2.5°	1556.5	1556.5	1556.5	1554.7	1554.7
5°	1540.2	1538.4	1538.4	1536.6	1536.6
7.5°	1527.5	1525.7	1523.9	1522.1	1518.5
10°	1509.4	1509.4	1507.6	1498.5	1496.7
12.5°	1480.4	1478.6	1471.3	1458.7	1455.0
15°	1440.5	1440.5	1426.0	1411.6	1406.1
17.5°	1397.1	1395.2	1377.1	1362.6	1355.4
20°	1349.9	1346.3	1328.2	1304.6	1292.0
22.5°	1297.4	1297.4	1275.7	1244.8	1232.2
25°	1248.5	1241.2	1221.3	1177.8	1145.2
27.5°	1192.3	1181.4	1159.7	1098.1	1060.0
30°	1130.7	1125.3	1094.4	1014.7	985.7
32.5°	1072.7	1063.6	1031.0	947.7	924.1
35°	1012.9	1005.7	956.7	884.3	862.5
37.5°	953.1	944.1	882.4	824.5	797.3
40°	893.3	882.4	815.4	762.9	733.9
42.5°	837.1	822.6	757.4	701.2	668.6
45°	777.3	761.0	695.8	637.8	612.5
47.5°	717.6	703.1	643.3	583.5	554.5
50°	654.1	641.4	587.1	527.3	496.5
52.5°	601.6	581.7	529.1	469.3	443.9
55°	540.0	523.7	474.7	418.6	396.8
57.5°	483.8	467.5	422.2	369.6	351.5
60°	431.3	407.7	369.6	324.3	309.9
62.5°	373.3	355.2	322.5	284.5	302.6
65°	320.7	302.6	273.6	279.0	231.9
67.5°	262.7	253.7	228.3	202.9	195.7
70°	213.8	202.9	193.9	166.7	159.5
72.5°	170.3	159.5	146.8	132.3	126.8
75°	128.7	119.6	112.3	106.9	117.8
77.5°	88.8	85.2	79.7	74.3	72.5
80°	58.0	56.2	54.4	52.5	50.7
82.5°	34.4	34.4	34.4	34.4	34.4
85°	18.1	19.9	21.7	23.6	25.4
87.5°	10.9	10.9	12.7	14.5	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)