

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: P559353

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559353
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-12-1-LD4-2LO-50-UNV-80-88-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

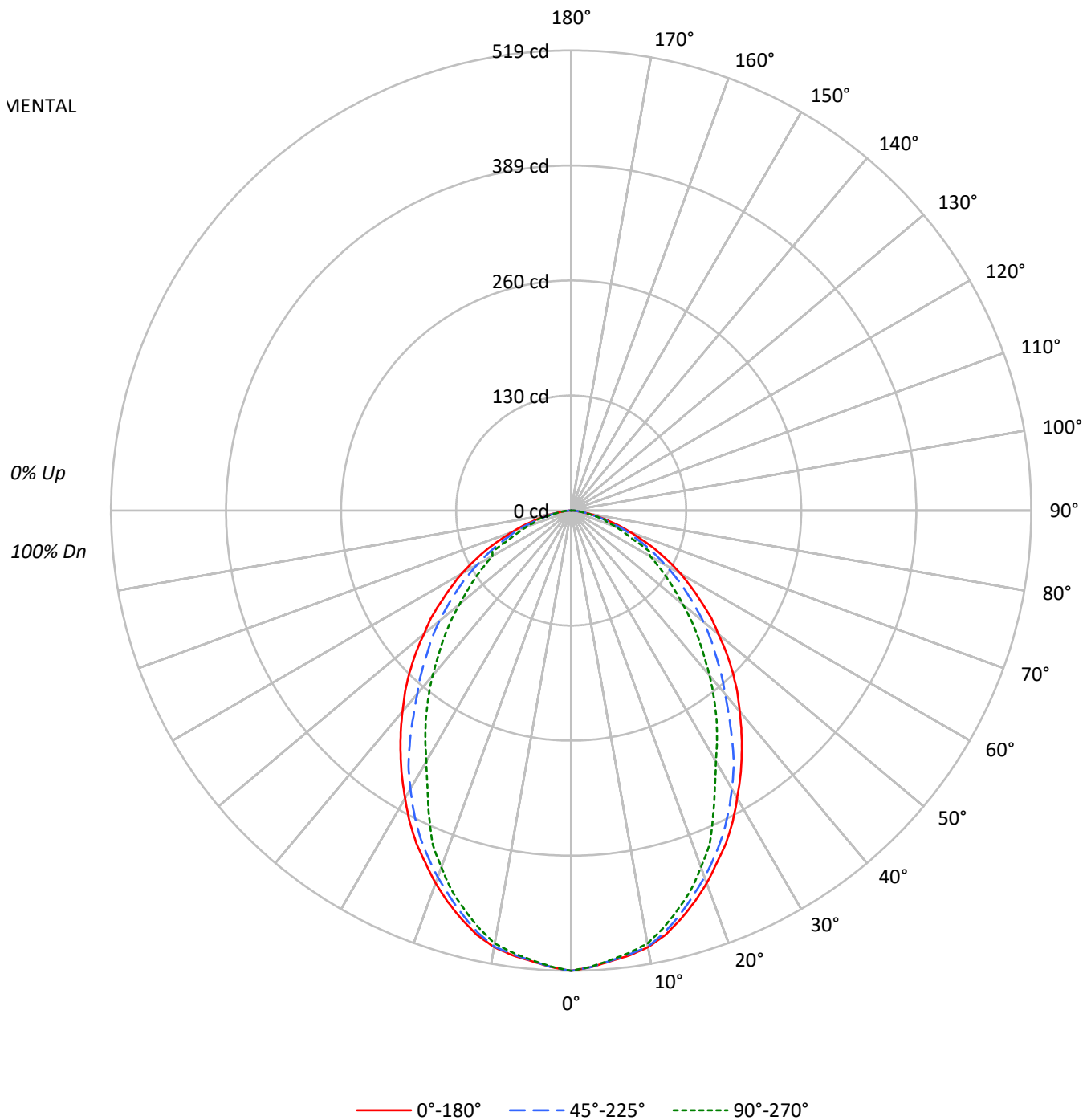
Lumens per Lamp: N/A
Luminaire Lumens: 1018.9 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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	35	44	39	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°	5588	5588	5588
5°	5512	5505	5499
10°	5464	5457	5418
15°	5317	5263	5190
20°	5121	5039	4901
25°	4911	4804	4504
30°	4653	4504	4057
35°	4407	4163	3753
40°	4156	3794	3414
45°	3918	3507	3087
50°	3627	3255	2753
55°	3355	2950	2466
60°	3074	2635	2209
65°	2705	2308	1956
70°	2228	2020	1662
75°	1772	1547	1622
80°	1190	1116	1041
85°	741	889	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3918 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	4.7
10°-20°	132.6	13.0
20°-30°	183.6	18.0
30°-40°	195.7	19.2
40°-50°	178.6	17.5
50°-60°	139.9	13.7
60°-70°	91.2	8.9
70°-80°	40.4	4.0
80°-90°	8.7	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°	364.5	35.8
0°-40°	560.2	55.0
0°-60°	878.7	86.2
0°-90°	1018.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1018.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	510	510	510	509	509	48
15°	477	477	472	468	466	134
25°	414	411	404	390	379	190
35°	335	333	317	293	286	210
45°	257	252	230	211	203	198
55°	179	173	157	139	131	160
65°	106	100	91	92	77	105
75°	43	40	37	35	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	519.1	519.1	519.1	519.1	519.1
2.5°	515.5	515.5	515.5	514.9	514.9
5°	510.1	509.5	509.5	508.9	508.9
7.5°	505.9	505.3	504.7	504.1	502.9
10°	499.9	499.9	499.3	496.3	495.7
12.5°	490.3	489.7	487.3	483.1	481.9
15°	477.1	477.1	472.3	467.5	465.7
17.5°	462.7	462.1	456.1	451.3	448.9
20°	447.1	445.9	439.9	432.1	427.9
22.5°	429.7	429.7	422.5	412.3	408.1
25°	413.5	411.1	404.5	390.0	379.2
27.5°	394.8	391.2	384.0	363.6	351.0
30°	374.4	372.6	362.4	336.0	326.4
32.5°	355.2	352.2	341.4	313.8	306.0
35°	335.4	333.0	316.8	292.8	285.6
37.5°	315.6	312.6	292.2	273.0	264.0
40°	295.8	292.2	270.0	252.6	243.0
42.5°	277.2	272.4	250.8	232.2	221.4
45°	257.4	252.0	230.4	211.2	202.8
47.5°	237.6	232.8	213.0	193.2	183.6
50°	216.6	212.4	194.4	174.6	164.4
52.5°	199.2	192.6	175.2	155.4	147.0
55°	178.8	173.4	157.2	138.6	131.4
57.5°	160.2	154.8	139.8	122.4	116.4
60°	142.8	135.0	122.4	107.4	102.6
62.5°	123.6	117.6	106.8	94.2	100.2
65°	106.2	100.2	90.6	92.4	76.8
67.5°	87.0	84.0	75.6	67.2	64.8
70°	70.8	67.2	64.2	55.2	52.8
72.5°	56.4	52.8	48.6	43.8	42.0
75°	42.6	39.6	37.2	35.4	39.0
77.5°	29.4	28.2	26.4	24.6	24.0
80°	19.2	18.6	18.0	17.4	16.8
82.5°	11.4	11.4	11.4	11.4	11.4
85°	6.0	6.6	7.2	7.8	8.4
87.5°	3.6	3.6	4.2	4.8	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)