

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: P559088

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559088
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-LD4-2HI-40-UNV-80-84-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1638.0 lumens
Efficiency: N/A
Efficacy: 75.8 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

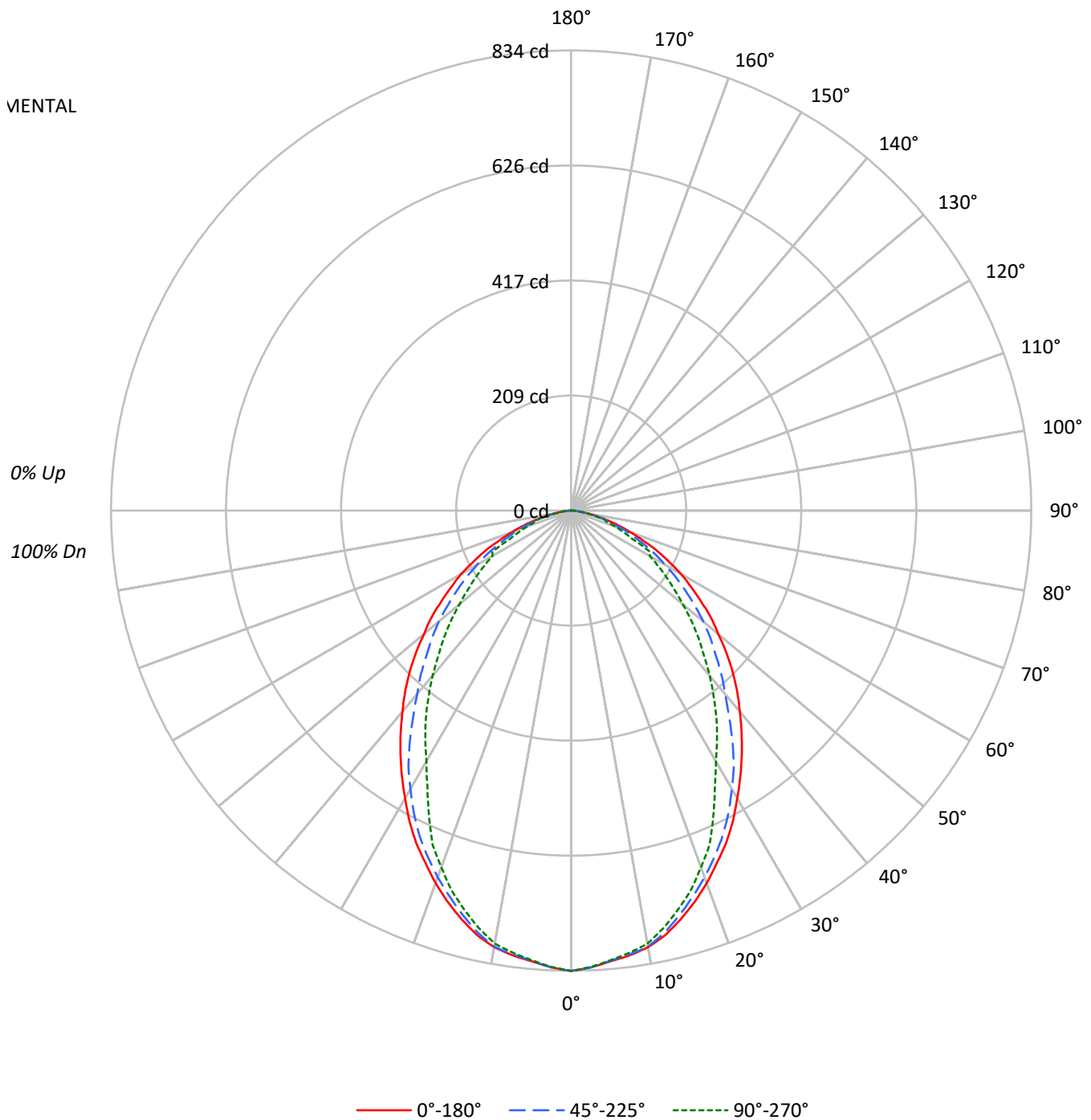
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8981	8981	8981
5°	8859	8848	8839
10°	8782	8771	8709
15°	8546	8459	8341
20°	8231	8098	7879
25°	7893	7721	7240
30°	7481	7241	6522
35°	7085	6692	6033
40°	6681	6100	5490
45°	6299	5638	4963
50°	5831	5233	4426
55°	5393	4742	3963
60°	4943	4237	3550
65°	4348	3711	3145
70°	3581	3248	2672
75°	2849	2487	2608
80°	1915	1791	1674
85°	1186	1433	1667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6299 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	4.7
10°-20°	213.2	13.0
20°-30°	295.1	18.0
30°-40°	314.7	19.2
40°-50°	287.1	17.5
50°-60°	224.9	13.7
60°-70°	146.6	8.9
70°-80°	64.9	4.0
80°-90°	13.9	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°	585.9	35.8
0°-40°	900.6	55.0
0°-60°	1412.5	86.2
0°-90°	1638.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1638.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	820	819	819	818	818	78
15°	767	767	759	751	748	216
25°	665	661	650	627	610	305
35°	539	535	509	471	459	337
45°	414	405	370	340	326	319
55°	287	279	253	223	211	258
65°	171	161	146	148	124	168
75°	68	64	60	57	63	73
85°	10	11	12	12	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	834.4	834.4	834.4	834.4	834.4
2.5°	828.6	828.6	828.6	827.6	827.6
5°	819.9	818.9	818.9	818.0	818.0
7.5°	813.2	812.2	811.2	810.3	808.3
10°	803.5	803.5	802.5	797.7	796.8
12.5°	788.1	787.1	783.3	776.5	774.6
15°	766.9	766.9	759.1	751.4	748.5
17.5°	743.7	742.7	733.1	725.4	721.5
20°	718.6	716.7	707.0	694.5	687.8
22.5°	690.7	690.7	679.1	662.7	655.9
25°	664.6	660.7	650.1	627.0	609.6
27.5°	634.7	628.9	617.3	584.5	564.3
30°	601.9	599.0	582.6	540.2	524.7
32.5°	571.0	566.2	548.9	504.5	491.9
35°	539.2	535.4	509.3	470.7	459.1
37.5°	507.4	502.6	469.8	438.9	424.4
40°	475.5	469.8	434.1	406.1	390.7
42.5°	445.6	437.9	403.2	373.3	355.9
45°	413.8	405.1	370.4	339.5	326.0
47.5°	382.0	374.3	342.4	310.6	295.2
50°	348.2	341.5	312.5	280.7	264.3
52.5°	320.2	309.6	281.7	249.8	236.3
55°	287.4	278.8	252.7	222.8	211.2
57.5°	257.5	248.9	224.8	196.8	187.1
60°	229.6	217.0	196.8	172.7	164.9
62.5°	198.7	189.1	171.7	151.4	161.1
65°	170.7	161.1	145.7	148.5	123.5
67.5°	139.9	135.0	121.5	108.0	104.2
70°	113.8	108.0	103.2	88.7	84.9
72.5°	90.7	84.9	78.1	70.4	67.5
75°	68.5	63.7	59.8	56.9	62.7
77.5°	47.3	45.3	42.4	39.5	38.6
80°	30.9	29.9	28.9	28.0	27.0
82.5°	18.3	18.3	18.3	18.3	18.3
85°	9.6	10.6	11.6	12.5	13.5
87.5°	5.8	5.8	6.8	7.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)