

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: P558624

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558624
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-LD4-1HI-50-UNV-93-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 864.0 lumens
Efficiency: N/A
Efficacy: 80.0 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

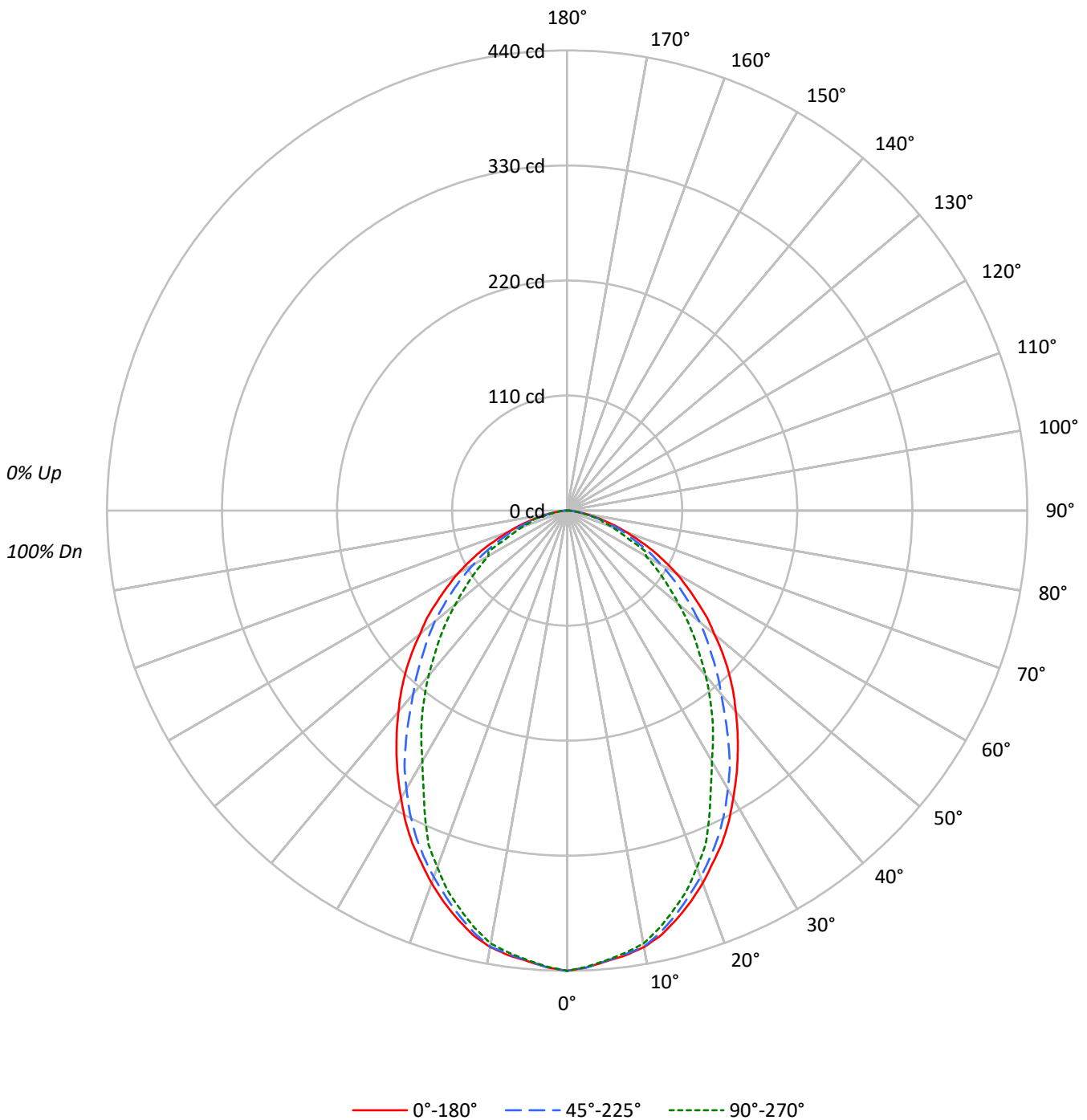
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	47	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°	4737	4737	4737
5°	4673	4668	4662
10°	4632	4627	4594
15°	4508	4462	4400
20°	4342	4271	4156
25°	4164	4073	3820
30°	3946	3819	3440
35°	3737	3529	3183
40°	3524	3218	2896
45°	3323	2974	2618
50°	3076	2761	2334
55°	2845	2502	2091
60°	2607	2235	1873
65°	2295	1956	1658
70°	1888	1712	1410
75°	1501	1310	1377
80°	1010	948	880
85°	630	753	877

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3323 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	4.7
10°-20°	112.4	13.0
20°-30°	155.7	18.0
30°-40°	166.0	19.2
40°-50°	151.4	17.5
50°-60°	118.6	13.7
60°-70°	77.3	8.9
70°-80°	34.3	4.0
80°-90°	7.4	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°	309.1	35.8
0°-40°	475.0	55.0
0°-60°	745.1	86.2
0°-90°	864.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	864.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	432	432	432	432	432	41
15°	404	404	400	396	395	114
25°	351	348	343	331	322	161
35°	284	282	269	248	242	178
45°	218	214	195	179	172	168
55°	152	147	133	118	111	136
65°	90	85	77	78	65	89
75°	36	34	32	30	33	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.1	440.1	440.1	440.1	440.1
2.5°	437.1	437.1	437.1	436.5	436.5
5°	432.5	432.0	432.0	431.5	431.5
7.5°	428.9	428.4	427.9	427.4	426.4
10°	423.8	423.8	423.3	420.8	420.3
12.5°	415.7	415.2	413.1	409.6	408.6
15°	404.5	404.5	400.4	396.4	394.8
17.5°	392.3	391.8	386.7	382.6	380.6
20°	379.1	378.0	372.9	366.3	362.8
22.5°	364.3	364.3	358.2	349.5	346.0
25°	350.6	348.5	342.9	330.7	321.6
27.5°	334.8	331.7	325.6	308.3	297.6
30°	317.5	316.0	307.3	284.9	276.8
32.5°	301.2	298.7	289.5	266.1	259.5
35°	284.4	282.4	268.6	248.3	242.2
37.5°	267.6	265.1	247.8	231.5	223.9
40°	250.8	247.8	229.0	214.2	206.1
42.5°	235.1	231.0	212.7	196.9	187.7
45°	218.3	213.7	195.4	179.1	172.0
47.5°	201.5	197.4	180.6	163.8	155.7
50°	183.7	180.1	164.9	148.1	139.4
52.5°	168.9	163.3	148.6	131.8	124.7
55°	151.6	147.0	133.3	117.5	111.4
57.5°	135.8	131.3	118.5	103.8	98.7
60°	121.1	114.5	103.8	91.1	87.0
62.5°	104.8	99.7	90.6	79.9	85.0
65°	90.1	85.0	76.8	78.4	65.1
67.5°	73.8	71.2	64.1	57.0	55.0
70°	60.0	57.0	54.4	46.8	44.8
72.5°	47.8	44.8	41.2	37.1	35.6
75°	36.1	33.6	31.5	30.0	33.1
77.5°	24.9	23.9	22.4	20.9	20.4
80°	16.3	15.8	15.3	14.8	14.2
82.5°	9.7	9.7	9.7	9.7	9.7
85°	5.1	5.6	6.1	6.6	7.1
87.5°	3.1	3.1	3.6	4.1	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)