

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: P559498

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559498
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-LD4-2STD-40-UNV-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1272.0 lumens
Efficiency: N/A
Efficacy: 76.6 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

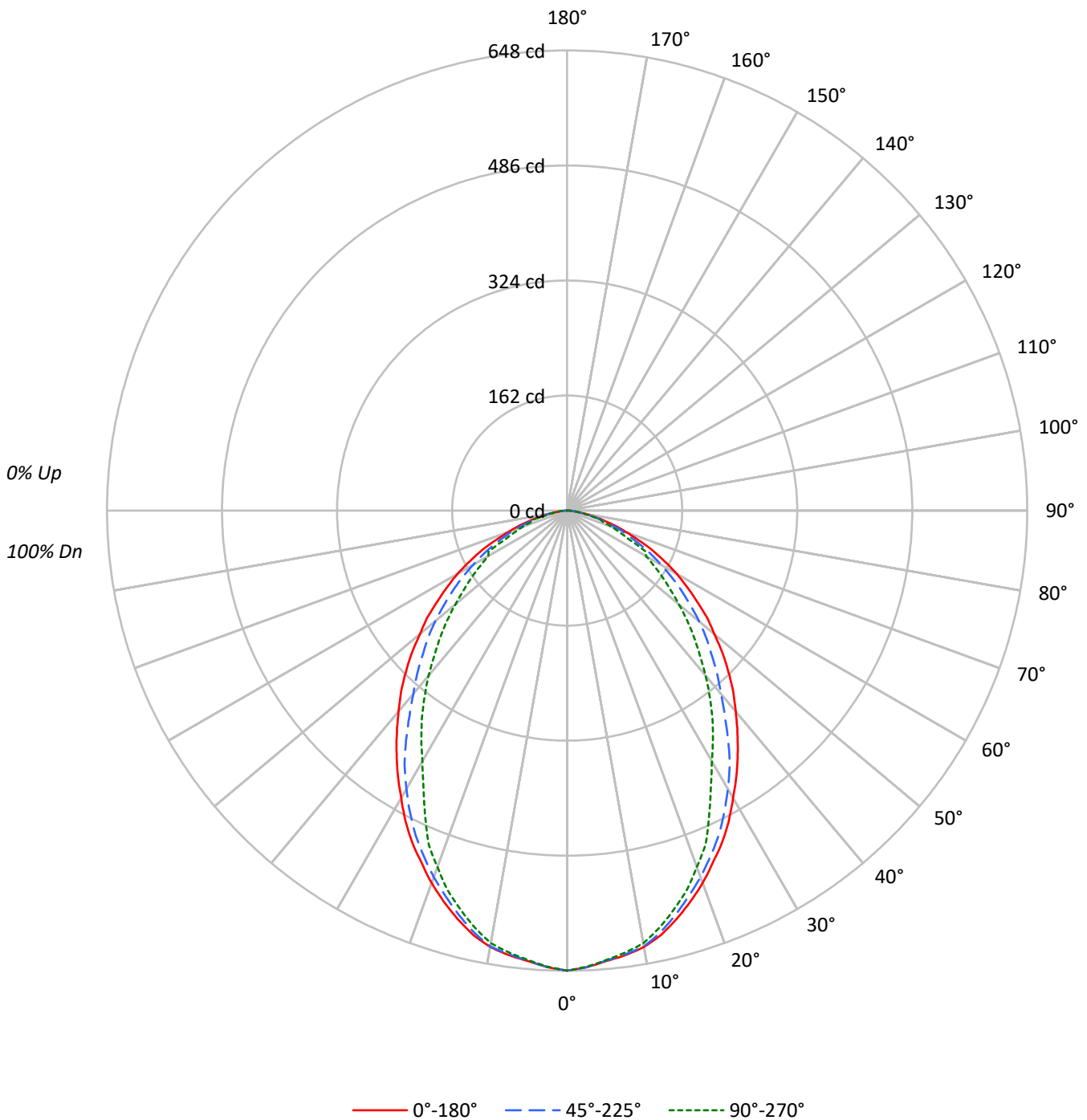
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6974	6974	6974
5°	6880	6872	6863
10°	6820	6812	6762
15°	6636	6569	6478
20°	6393	6290	6118
25°	6130	5997	5622
30°	5809	5623	5065
35°	5502	5197	4686
40°	5189	4737	4263
45°	4891	4378	3854
50°	4528	4064	3436
55°	4189	3684	3078
60°	3838	3289	2758
65°	3377	2881	2443
70°	2782	2521	2074
75°	2213	1930	2025
80°	1488	1395	1302
85°	926	1112	1297

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4891 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	4.7
10°-20°	165.5	13.0
20°-30°	229.2	18.0
30°-40°	244.4	19.2
40°-50°	222.9	17.5
50°-60°	174.6	13.7
60°-70°	113.8	8.9
70°-80°	50.4	4.0
80°-90°	10.8	0.8
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°	455.0	35.8
0°-40°	699.4	55.0
0°-60°	1096.9	86.2
0°-90°	1272.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1272.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	637	636	636	635	635	60
15°	596	596	590	584	581	167
25°	516	513	505	487	473	237
35°	419	416	396	366	357	262
45°	321	315	288	264	253	248
55°	223	216	196	173	164	200
65°	133	125	113	115	96	131
75°	53	49	46	44	49	57
85°	8	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	647.9	647.9	647.9	647.9	647.9
2.5°	643.4	643.4	643.4	642.7	642.7
5°	636.7	636.0	636.0	635.2	635.2
7.5°	631.5	630.7	630.0	629.2	627.7
10°	624.0	624.0	623.2	619.5	618.7
12.5°	612.0	611.2	608.2	603.0	601.5
15°	595.5	595.5	589.5	583.5	581.3
17.5°	577.5	576.8	569.3	563.3	560.3
20°	558.1	556.6	549.1	539.3	534.1
22.5°	536.3	536.3	527.3	514.6	509.4
25°	516.1	513.1	504.9	486.9	473.4
27.5°	492.9	488.4	479.4	453.9	438.2
30°	467.4	465.2	452.4	419.5	407.5
32.5°	443.4	439.7	426.2	391.8	382.0
35°	418.7	415.7	395.5	365.5	356.6
37.5°	394.0	390.3	364.8	340.8	329.6
40°	369.3	364.8	337.1	315.4	303.4
42.5°	346.1	340.1	313.1	289.9	276.4
45°	321.3	314.6	287.6	263.7	253.2
47.5°	296.6	290.6	265.9	241.2	229.2
50°	270.4	265.2	242.7	218.0	205.2
52.5°	248.7	240.4	218.7	194.0	183.5
55°	223.2	216.5	196.3	173.0	164.0
57.5°	200.0	193.3	174.5	152.8	145.3
60°	178.3	168.5	152.8	134.1	128.1
62.5°	154.3	146.8	133.3	117.6	125.1
65°	132.6	125.1	113.1	115.4	95.9
67.5°	108.6	104.9	94.4	83.9	80.9
70°	88.4	83.9	80.1	68.9	65.9
72.5°	70.4	65.9	60.7	54.7	52.4
75°	53.2	49.4	46.4	44.2	48.7
77.5°	36.7	35.2	33.0	30.7	30.0
80°	24.0	23.2	22.5	21.7	21.0
82.5°	14.2	14.2	14.2	14.2	14.2
85°	7.5	8.2	9.0	9.7	10.5
87.5°	4.5	4.5	5.2	6.0	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)