

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: P558532

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558532
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-40-UNV-81-86-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 754.0 lumens
Efficiency: N/A
Efficacy: 69.8 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

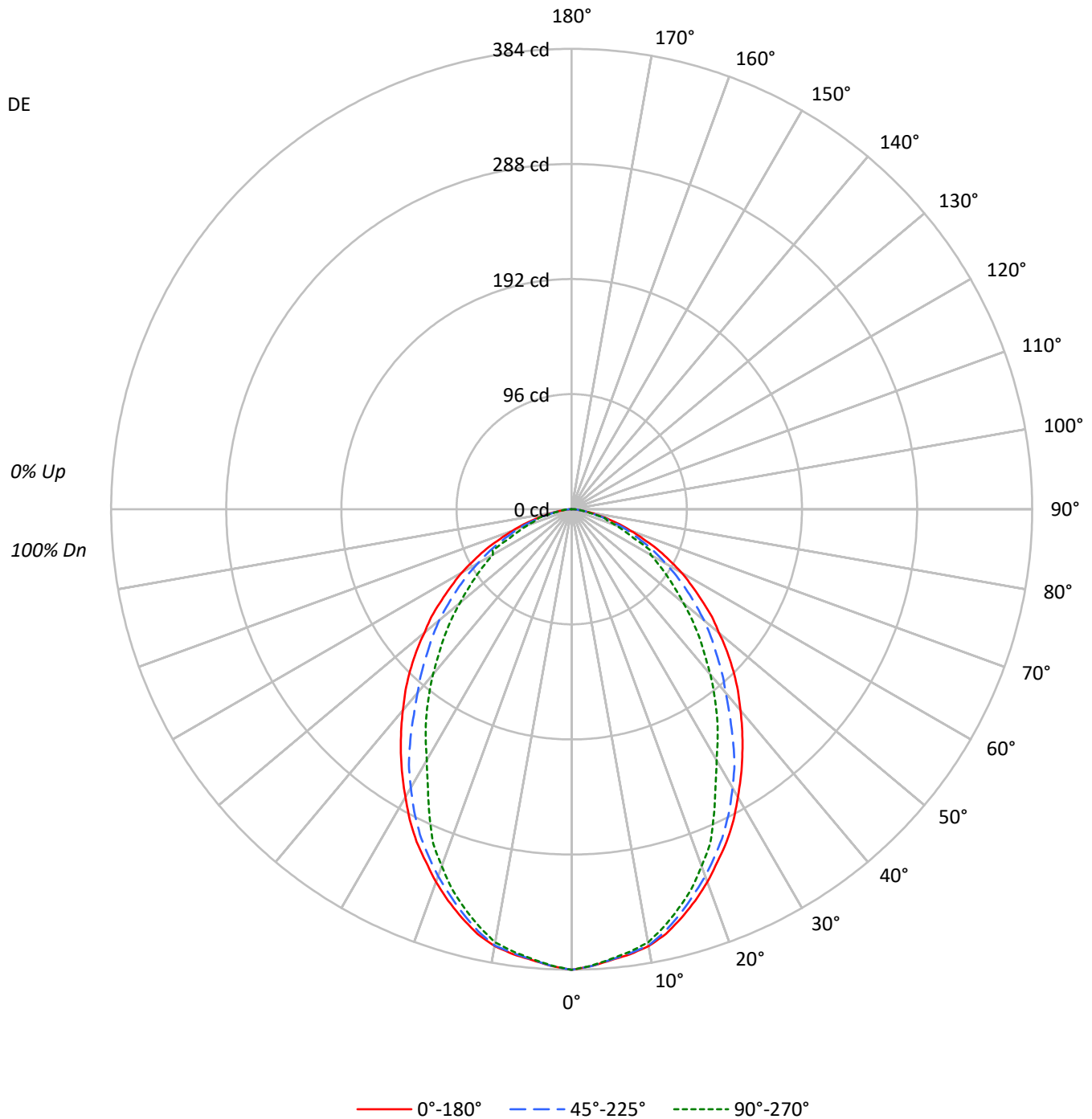
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4134	4134	4134
5°	4078	4073	4068
10°	4043	4038	4009
15°	3934	3894	3840
20°	3789	3729	3627
25°	3633	3555	3333
30°	3444	3333	3002
35°	3261	3080	2778
40°	3076	2807	2526
45°	2900	2595	2285
50°	2684	2410	2038
55°	2483	2183	1824
60°	2275	1950	1634
65°	2002	1706	1447
70°	1649	1495	1231
75°	1310	1144	1202
80°	880	824	769
85°	543	655	766

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2900 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.8	4.7
10°-20°	98.1	13.0
20°-30°	135.8	18.0
30°-40°	144.8	19.2
40°-50°	132.1	17.5
50°-60°	103.5	13.7
60°-70°	67.5	8.9
70°-80°	29.9	4.0
80°-90°	6.4	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°	269.7	35.8
0°-40°	414.6	55.0
0°-60°	650.2	86.2
0°-90°	754.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	754.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	384	384	384	384	384	
5°	377	377	377	376	376	36
15°	353	353	349	346	345	99
25°	306	304	299	289	281	140
35°	248	246	234	217	211	155
45°	190	186	170	156	150	147
55°	132	128	116	103	97	119
65°	79	74	67	68	57	77
75°	32	29	28	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	384.1	384.1	384.1	384.1	384.1
2.5°	381.4	381.4	381.4	381.0	381.0
5°	377.4	377.0	377.0	376.5	376.5
7.5°	374.3	373.9	373.4	373.0	372.1
10°	369.9	369.9	369.4	367.2	366.8
12.5°	362.8	362.3	360.5	357.4	356.5
15°	353.0	353.0	349.4	345.9	344.6
17.5°	342.3	341.9	337.5	333.9	332.1
20°	330.8	329.9	325.5	319.7	316.6
22.5°	317.9	317.9	312.6	305.0	301.9
25°	305.9	304.2	299.3	288.6	280.6
27.5°	292.2	289.5	284.2	269.1	259.8
30°	277.1	275.7	268.2	248.7	241.5
32.5°	262.9	260.6	252.6	232.2	226.5
35°	248.2	246.4	234.4	216.7	211.4
37.5°	233.6	231.3	216.2	202.0	195.4
40°	218.9	216.2	199.8	186.9	179.8
42.5°	205.1	201.6	185.6	171.8	163.8
45°	190.5	186.5	170.5	156.3	150.1
47.5°	175.8	172.3	157.6	143.0	135.9
50°	160.3	157.2	143.9	129.2	121.7
52.5°	147.4	142.5	129.7	115.0	108.8
55°	132.3	128.3	116.3	102.6	97.2
57.5°	118.6	114.6	103.5	90.6	86.1
60°	105.7	99.9	90.6	79.5	75.9
62.5°	91.5	87.0	79.0	69.7	74.2
65°	78.6	74.2	67.0	68.4	56.8
67.5°	64.4	62.2	55.9	49.7	48.0
70°	52.4	49.7	47.5	40.8	39.1
72.5°	41.7	39.1	36.0	32.4	31.1
75°	31.5	29.3	27.5	26.2	28.9
77.5°	21.8	20.9	19.5	18.2	17.8
80°	14.2	13.8	13.3	12.9	12.4
82.5°	8.4	8.4	8.4	8.4	8.4
85°	4.4	4.9	5.3	5.8	6.2
87.5°	2.7	2.7	3.1	3.6	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)