

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: P558607

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-81-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558607
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-81-97-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 900.0 lumens
Efficiency: N/A
Efficacy: 83.3 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

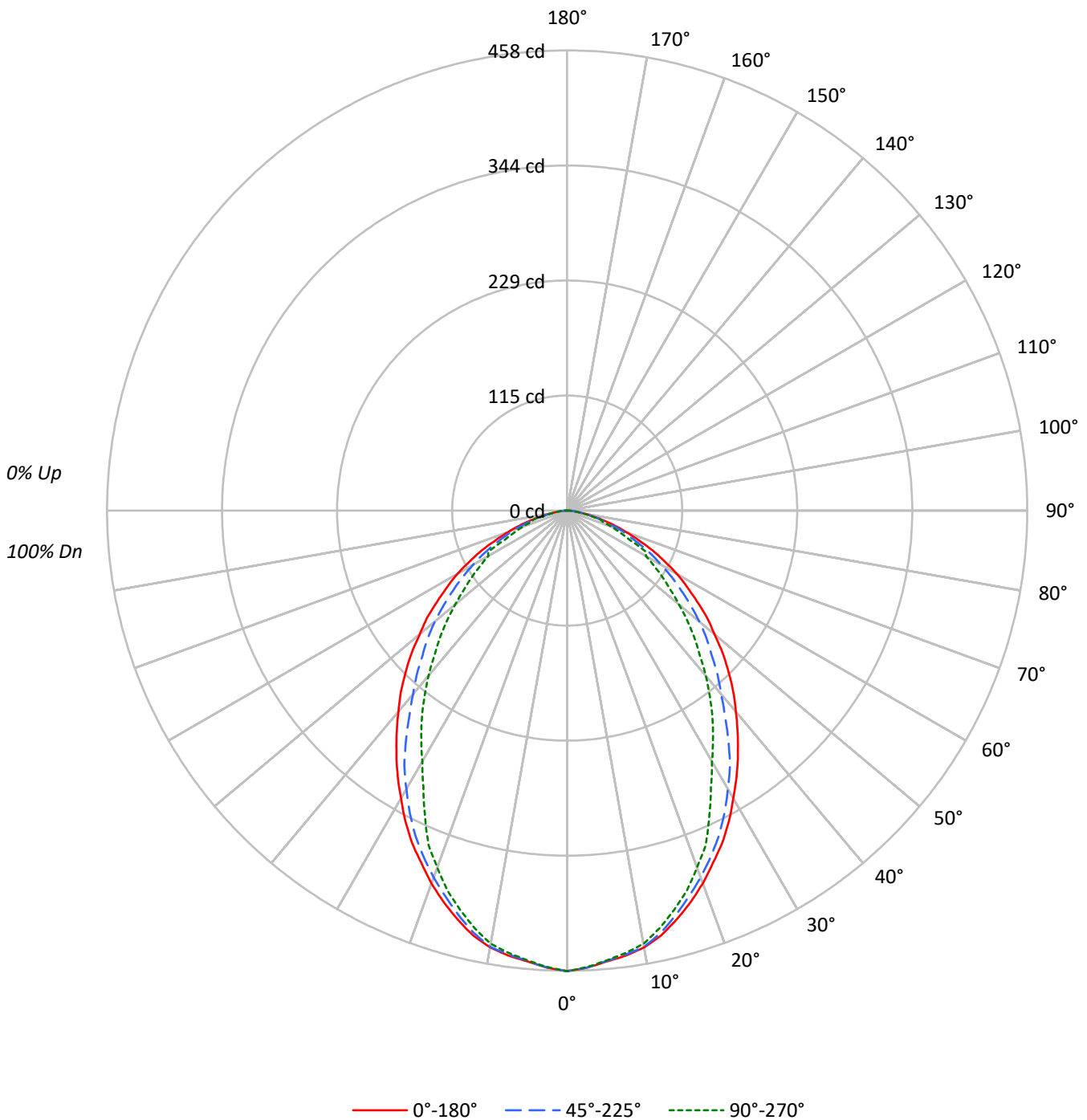
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4934	4934	4934
5°	4868	4862	4856
10°	4826	4820	4785
15°	4695	4648	4583
20°	4522	4450	4329
25°	4337	4242	3979
30°	4110	3979	3583
35°	3893	3677	3315
40°	3672	3351	3015
45°	3462	3098	2726
50°	3203	2875	2431
55°	2963	2607	2179
60°	2715	2327	1950
65°	2389	2038	1727
70°	1967	1784	1467
75°	1564	1368	1431
80°	1054	986	917
85°	655	790	914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3462 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.7	4.7
10°-20°	117.1	13.0
20°-30°	162.1	18.0
30°-40°	172.9	19.2
40°-50°	157.7	17.5
50°-60°	123.6	13.7
60°-70°	80.5	8.9
70°-80°	35.7	4.0
80°-90°	7.7	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°	321.9	35.8
0°-40°	494.8	55.0
0°-60°	776.1	86.2
0°-90°	900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	458	458	458	458	458	
5°	450	450	450	449	449	43
15°	421	421	417	413	411	118
25°	365	363	357	344	335	168
35°	296	294	280	259	252	185
45°	227	223	204	187	179	175
55°	158	153	139	122	116	142
65°	94	88	80	82	68	92
75°	38	35	33	31	34	40
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°	458.4	458.4	458.4	458.4	458.4
2.5°	455.3	455.3	455.3	454.7	454.7
5°	450.5	450.0	450.0	449.4	449.4
7.5°	446.8	446.3	445.7	445.2	444.1
10°	441.5	441.5	441.0	438.3	437.8
12.5°	433.0	432.5	430.4	426.6	425.6
15°	421.3	421.3	417.1	412.9	411.3
17.5°	408.6	408.1	402.8	398.6	396.4
20°	394.8	393.8	388.5	381.6	377.9
22.5°	379.5	379.5	373.1	364.1	360.4
25°	365.2	363.0	357.2	344.5	335.0
27.5°	348.7	345.6	339.2	321.2	310.0
30°	330.7	329.1	320.1	296.8	288.3
32.5°	313.8	311.1	301.6	277.2	270.3
35°	296.3	294.1	279.8	258.6	252.3
37.5°	278.8	276.1	258.1	241.1	233.2
40°	261.3	258.1	238.5	223.1	214.6
42.5°	244.9	240.6	221.5	205.1	195.6
45°	227.4	222.6	203.5	186.6	179.1
47.5°	209.9	205.6	188.1	170.7	162.2
50°	191.3	187.6	171.7	154.2	145.2
52.5°	176.0	170.1	154.8	137.3	129.8
55°	157.9	153.2	138.9	122.4	116.1
57.5°	141.5	136.7	123.5	108.1	102.8
60°	126.1	119.2	108.1	94.9	90.6
62.5°	109.2	103.9	94.3	83.2	88.5
65°	93.8	88.5	80.0	81.6	67.8
67.5°	76.8	74.2	66.8	59.4	57.2
70°	62.5	59.4	56.7	48.8	46.6
72.5°	49.8	46.6	42.9	38.7	37.1
75°	37.6	35.0	32.9	31.3	34.4
77.5°	26.0	24.9	23.3	21.7	21.2
80°	17.0	16.4	15.9	15.4	14.8
82.5°	10.1	10.1	10.1	10.1	10.1
85°	5.3	5.8	6.4	6.9	7.4
87.5°	3.2	3.2	3.7	4.2	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)