

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: P558535

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558535
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-81-87-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 868.0 lumens
Efficiency: N/A
Efficacy: 80.4 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

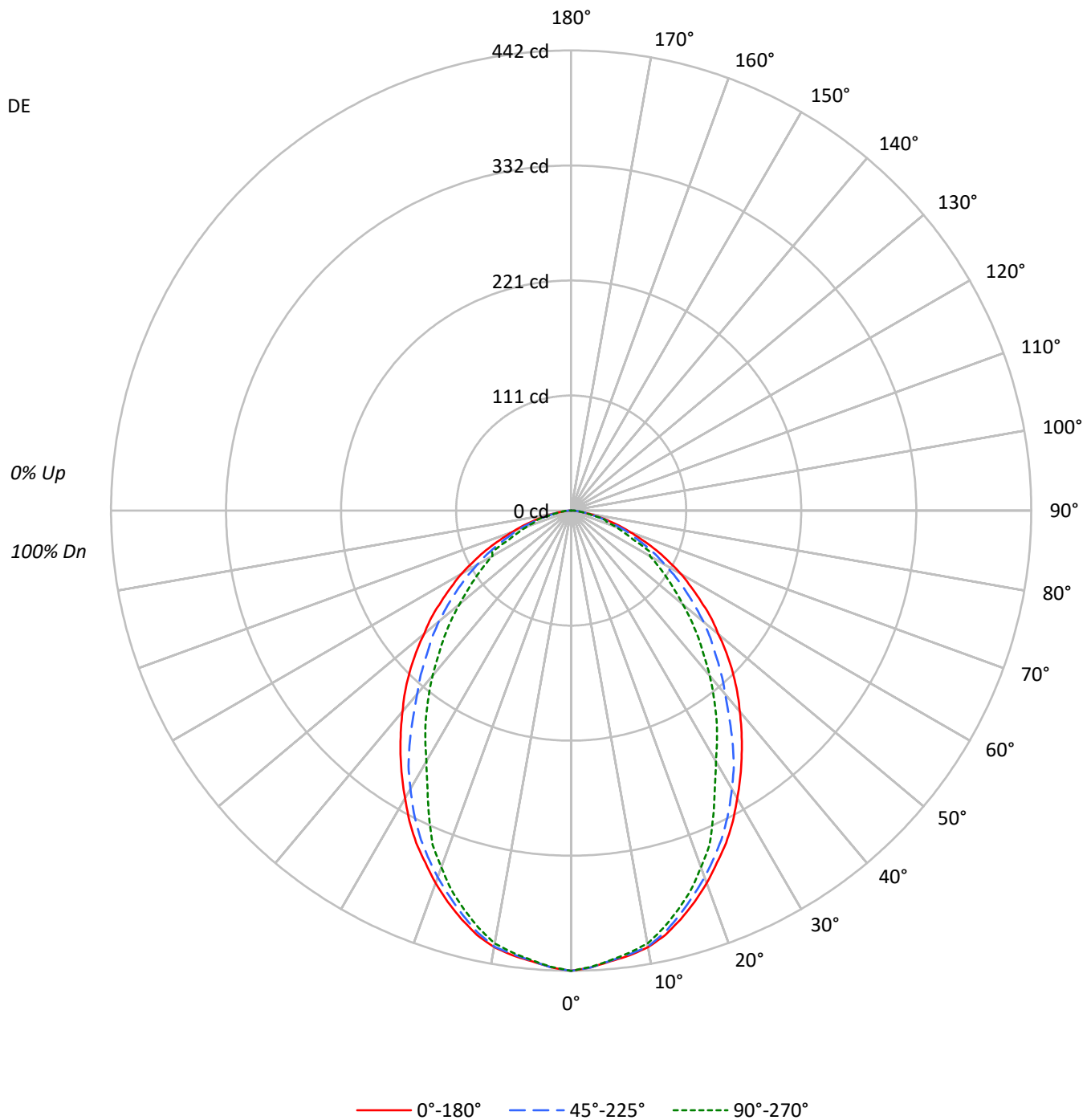
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4759	4759	4759
5°	4695	4689	4684
10°	4654	4649	4615
15°	4529	4483	4421
20°	4362	4292	4175
25°	4183	4092	3836
30°	3965	3837	3457
35°	3754	3547	3197
40°	3541	3232	2909
45°	3338	2988	2630
50°	3090	2773	2346
55°	2858	2513	2100
60°	2620	2245	1882
65°	2305	1966	1666
70°	1898	1721	1416
75°	1510	1318	1381
80°	1017	948	886
85°	630	753	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3338 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	4.7
10°-20°	113.0	13.0
20°-30°	156.4	18.0
30°-40°	166.7	19.2
40°-50°	152.1	17.5
50°-60°	119.2	13.7
60°-70°	77.7	8.9
70°-80°	34.4	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°	310.5	35.8
0°-40°	477.2	55.0
0°-60°	748.5	86.2
0°-90°	868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	434	434	434	434	434	41
15°	406	406	402	398	397	114
25°	352	350	344	332	323	162
35°	286	284	270	249	243	179
45°	219	215	196	180	173	169
55°	152	148	134	118	112	137
65°	90	85	77	79	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°	442.1	442.1	442.1	442.1	442.1
2.5°	439.1	439.1	439.1	438.6	438.6
5°	434.5	434.0	434.0	433.5	433.5
7.5°	430.9	430.4	429.9	429.4	428.3
10°	425.8	425.8	425.3	422.7	422.2
12.5°	417.6	417.1	415.1	411.5	410.5
15°	406.4	406.4	402.3	398.2	396.7
17.5°	394.1	393.6	388.5	384.4	382.3
20°	380.8	379.8	374.7	368.0	364.5
22.5°	366.0	366.0	359.9	351.2	347.6
25°	352.2	350.1	344.5	332.2	323.0
27.5°	336.3	333.3	327.1	309.8	299.0
30°	319.0	317.4	308.7	286.2	278.1
32.5°	302.6	300.0	290.8	267.3	260.7
35°	285.7	283.7	269.9	249.4	243.3
37.5°	268.9	266.3	248.9	232.6	224.9
40°	252.0	248.9	230.0	215.2	207.0
42.5°	236.2	232.1	213.7	197.8	188.6
45°	219.3	214.7	196.3	179.9	172.8
47.5°	202.4	198.3	181.5	164.6	156.4
50°	184.5	180.9	165.6	148.7	140.1
52.5°	169.7	164.1	149.3	132.4	125.2
55°	152.3	147.7	133.9	118.1	111.9
57.5°	136.5	131.9	119.1	104.3	99.2
60°	121.7	115.0	104.3	91.5	87.4
62.5°	105.3	100.2	91.0	80.3	85.4
65°	90.5	85.4	77.2	78.7	65.4
67.5°	74.1	71.6	64.4	57.2	55.2
70°	60.3	57.2	54.7	47.0	45.0
72.5°	48.0	45.0	41.4	37.3	35.8
75°	36.3	33.7	31.7	30.2	33.2
77.5°	25.0	24.0	22.5	21.0	20.4
80°	16.4	15.8	15.3	14.8	14.3
82.5°	9.7	9.7	9.7	9.7	9.7
85°	5.1	5.6	6.1	6.6	7.2
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)