

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: P558528

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558528
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-81-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 778.0 lumens
Efficiency: N/A
Efficacy: 72.0 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

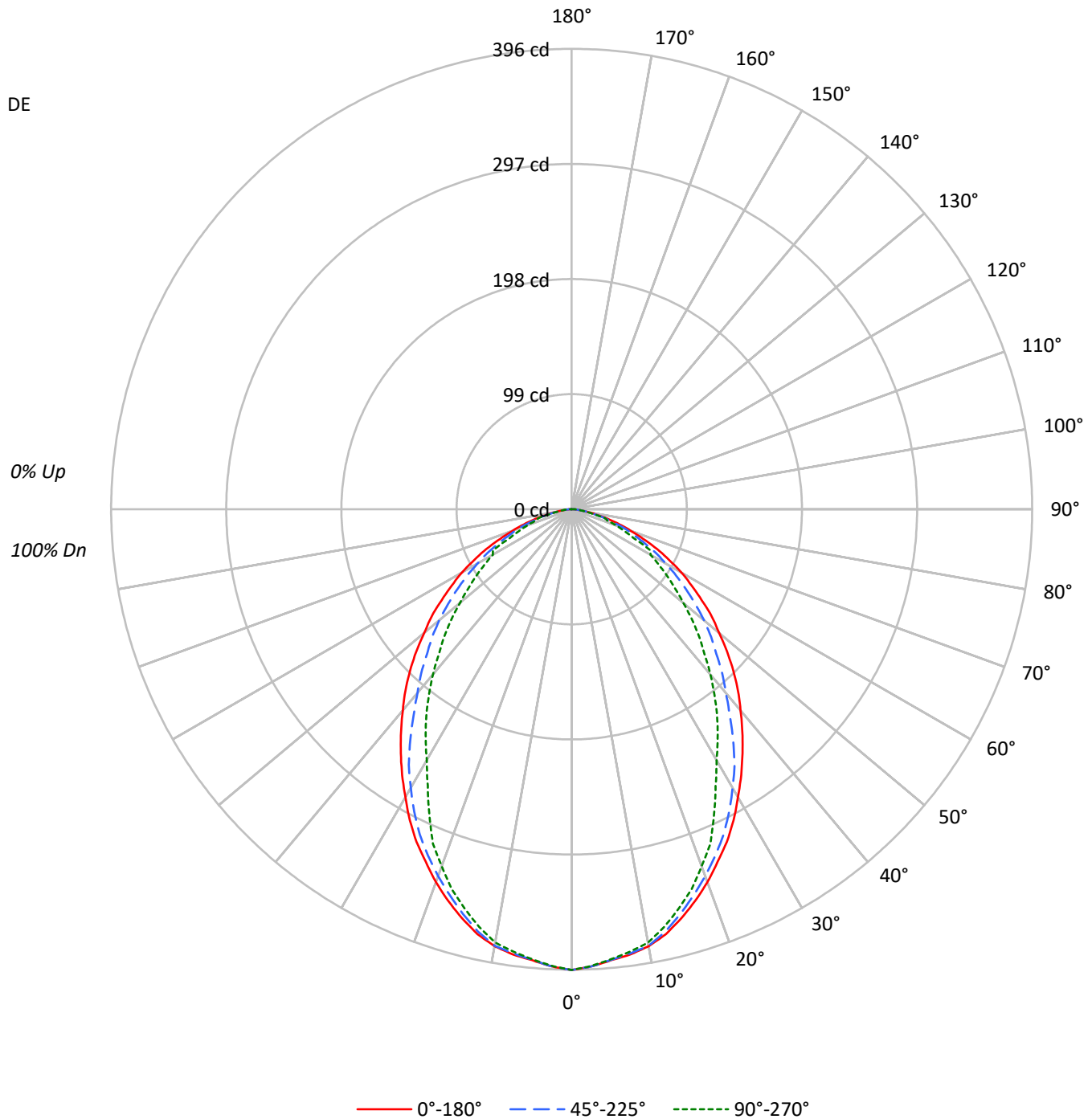
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4266	4266	4266
5°	4207	4203	4198
10°	4171	4167	4136
15°	4059	4018	3962
20°	3909	3846	3742
25°	3749	3668	3439
30°	3553	3439	3097
35°	3365	3179	2866
40°	3174	2897	2608
45°	2991	2678	2358
50°	2770	2485	2102
55°	2562	2252	1882
60°	2347	2013	1686
65°	2066	1762	1493
70°	1703	1542	1268
75°	1352	1181	1239
80°	911	849	793
85°	568	679	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2991 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	4.7
10°-20°	101.2	13.0
20°-30°	140.2	18.0
30°-40°	149.5	19.2
40°-50°	136.3	17.5
50°-60°	106.8	13.7
60°-70°	69.6	8.9
70°-80°	30.8	4.0
80°-90°	6.6	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°	278.3	35.8
0°-40°	427.7	55.0
0°-60°	670.9	86.2
0°-90°	778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	396	396	396	396	396	
5°	389	389	389	388	388	37
15°	364	364	361	357	356	102
25°	316	314	309	298	290	145
35°	256	254	242	224	218	160
45°	196	192	176	161	155	151
55°	136	132	120	106	100	122
65°	81	76	69	71	59	80
75°	32	30	28	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	396.3	396.3	396.3	396.3	396.3
2.5°	393.6	393.6	393.6	393.1	393.1
5°	389.4	389.0	389.0	388.5	388.5
7.5°	386.2	385.8	385.3	384.8	383.9
10°	381.6	381.6	381.2	378.9	378.4
12.5°	374.3	373.9	372.0	368.8	367.9
15°	364.2	364.2	360.6	356.9	355.5
17.5°	353.2	352.8	348.2	344.5	342.7
20°	341.3	340.4	335.8	329.9	326.7
22.5°	328.0	328.0	322.5	314.8	311.5
25°	315.7	313.8	308.8	297.8	289.6
27.5°	301.5	298.7	293.2	277.6	268.0
30°	285.9	284.5	276.7	256.6	249.2
32.5°	271.2	268.9	260.7	239.6	233.7
35°	256.1	254.3	241.9	223.6	218.1
37.5°	241.0	238.7	223.1	208.5	201.6
40°	225.9	223.1	206.2	192.9	185.6
42.5°	211.7	208.0	191.5	177.3	169.1
45°	196.5	192.4	175.9	161.3	154.9
47.5°	181.4	177.8	162.6	147.5	140.2
50°	165.4	162.2	148.4	133.3	125.5
52.5°	152.1	147.1	133.8	118.7	112.2
55°	136.5	132.4	120.0	105.8	100.3
57.5°	122.3	118.2	106.7	93.5	88.9
60°	109.0	103.1	93.5	82.0	78.3
62.5°	94.4	89.8	81.6	71.9	76.5
65°	81.1	76.5	69.2	70.6	58.6
67.5°	66.4	64.1	57.7	51.3	49.5
70°	54.1	51.3	49.0	42.2	40.3
72.5°	43.1	40.3	37.1	33.4	32.1
75°	32.5	30.2	28.4	27.0	29.8
77.5°	22.4	21.5	20.2	18.8	18.3
80°	14.7	14.2	13.7	13.3	12.8
82.5°	8.7	8.7	8.7	8.7	8.7
85°	4.6	5.0	5.5	6.0	6.4
87.5°	2.7	2.7	3.2	3.7	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)