

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: P558537

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558537
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-81-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 782.0 lumens
Efficiency: N/A
Efficacy: 72.4 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

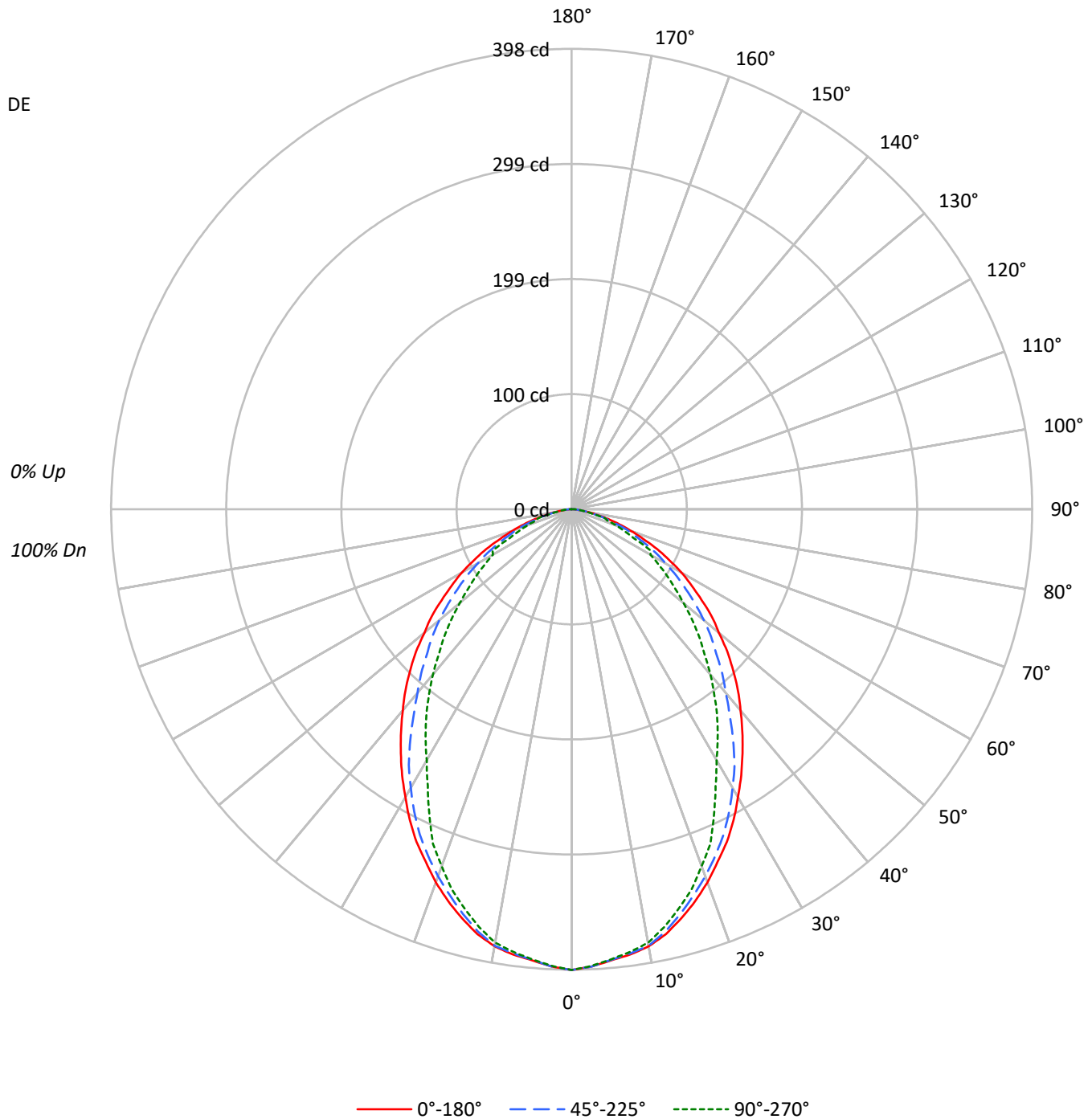
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4287	4287	4287
5°	4229	4225	4219
10°	4193	4187	4158
15°	4080	4038	3983
20°	3930	3867	3761
25°	3768	3687	3456
30°	3572	3457	3113
35°	3382	3194	2880
40°	3190	2911	2621
45°	3008	2691	2370
50°	2783	2498	2113
55°	2575	2265	1894
60°	2359	2021	1694
65°	2076	1770	1500
70°	1709	1552	1275
75°	1360	1189	1243
80°	911	855	800
85°	568	679	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3008 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	4.7
10°-20°	101.8	13.0
20°-30°	140.9	18.0
30°-40°	150.2	19.2
40°-50°	137.1	17.5
50°-60°	107.4	13.7
60°-70°	70.0	8.9
70°-80°	31.0	4.0
80°-90°	6.6	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°	279.7	35.8
0°-40°	429.9	55.0
0°-60°	674.4	86.2
0°-90°	782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	782.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	391	391	391	390	390	37
15°	366	366	362	359	357	103
25°	317	315	310	299	291	146
35°	257	256	243	225	219	161
45°	198	193	177	162	156	152
55°	137	133	121	106	101	123
65°	82	77	70	71	59	80
75°	33	30	29	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°	398.3	398.3	398.3	398.3	398.3
2.5°	395.6	395.6	395.6	395.1	395.1
5°	391.4	391.0	391.0	390.5	390.5
7.5°	388.2	387.7	387.3	386.8	385.9
10°	383.6	383.6	383.1	380.8	380.4
12.5°	376.2	375.8	373.9	370.7	369.8
15°	366.1	366.1	362.4	358.7	357.4
17.5°	355.1	354.6	350.0	346.3	344.5
20°	343.1	342.2	337.6	331.6	328.3
22.5°	329.7	329.7	324.2	316.4	313.1
25°	317.3	315.4	310.4	299.3	291.0
27.5°	303.0	300.3	294.7	279.1	269.4
30°	287.4	286.0	278.1	257.9	250.5
32.5°	272.6	270.3	262.0	240.8	234.9
35°	257.4	255.6	243.1	224.7	219.2
37.5°	242.2	239.9	224.3	209.5	202.6
40°	227.0	224.3	207.2	193.9	186.5
42.5°	212.8	209.1	192.5	178.2	169.9
45°	197.6	193.4	176.8	162.1	155.7
47.5°	182.4	178.7	163.5	148.3	140.9
50°	166.2	163.0	149.2	134.0	126.2
52.5°	152.9	147.8	134.5	119.3	112.8
55°	137.2	133.1	120.7	106.4	100.9
57.5°	123.0	118.8	107.3	93.9	89.3
60°	109.6	103.6	93.9	82.4	78.7
62.5°	94.9	90.3	82.0	72.3	76.9
65°	81.5	76.9	69.5	70.9	58.9
67.5°	66.8	64.5	58.0	51.6	49.7
70°	54.3	51.6	49.3	42.4	40.5
72.5°	43.3	40.5	37.3	33.6	32.2
75°	32.7	30.4	28.6	27.2	29.9
77.5°	22.6	21.6	20.3	18.9	18.4
80°	14.7	14.3	13.8	13.4	12.9
82.5°	8.7	8.7	8.7	8.7	8.7
85°	4.6	5.1	5.5	6.0	6.4
87.5°	2.8	2.8	3.2	3.7	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)