

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: P558538

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558538
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-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 780.0 lumens
Efficiency: N/A
Efficacy: 72.2 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

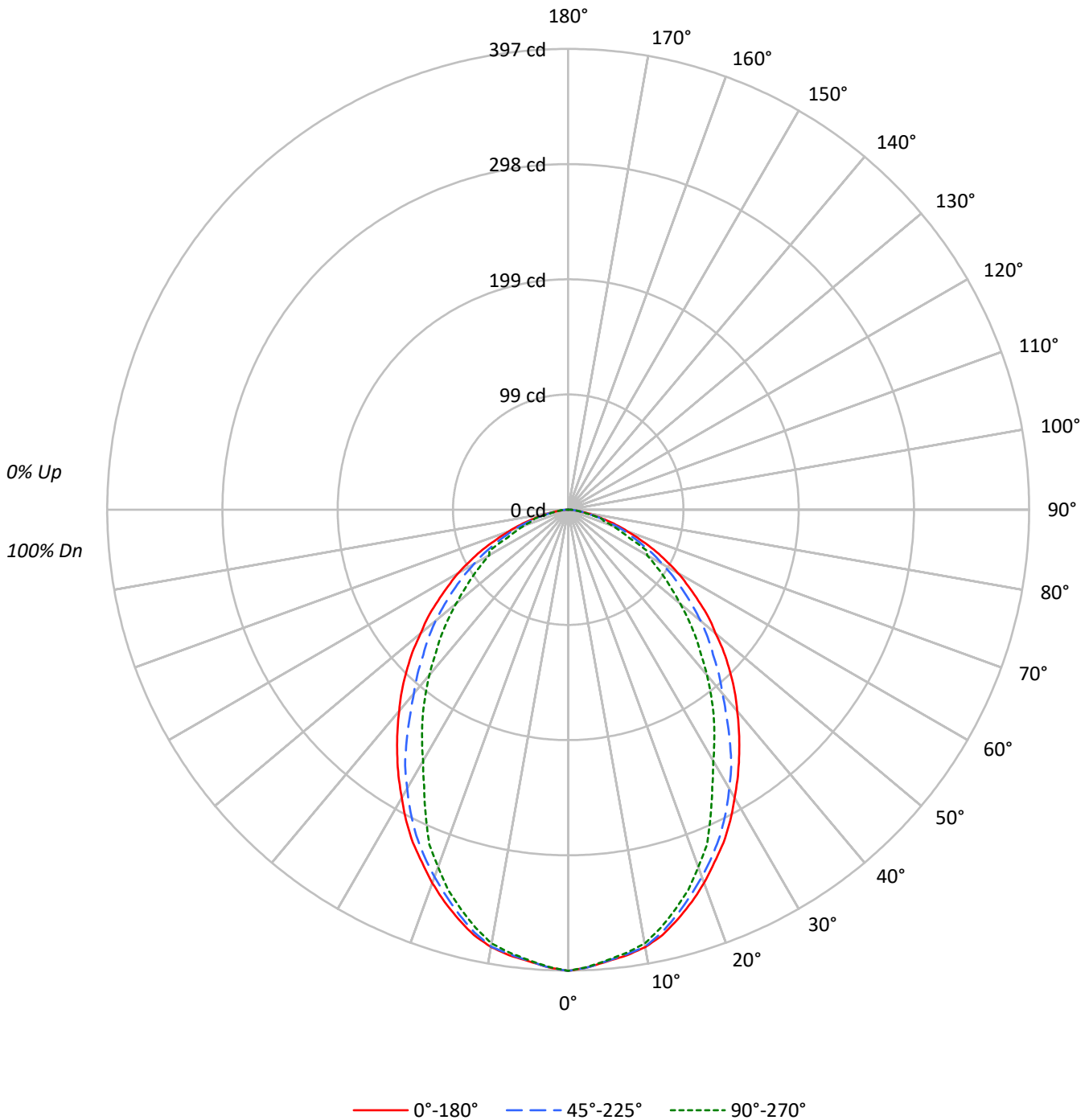
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4277	4277	4277
5°	4218	4214	4209
10°	4182	4177	4147
15°	4070	4028	3972
20°	3920	3857	3751
25°	3759	3677	3448
30°	3562	3448	3106
35°	3374	3187	2872
40°	3183	2904	2614
45°	3000	2685	2364
50°	2776	2492	2108
55°	2569	2258	1888
60°	2353	2017	1690
65°	2071	1768	1498
70°	1706	1545	1271
75°	1356	1185	1243
80°	911	855	800
85°	568	679	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3000 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	4.7
10°-20°	101.5	13.0
20°-30°	140.5	18.0
30°-40°	149.8	19.2
40°-50°	136.7	17.5
50°-60°	107.1	13.7
60°-70°	69.8	8.9
70°-80°	30.9	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°	279.0	35.8
0°-40°	428.9	55.0
0°-60°	672.6	86.2
0°-90°	780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	390	390	390	390	390	37
15°	365	365	362	358	356	103
25°	316	315	310	299	290	145
35°	257	255	242	224	219	161
45°	197	193	176	162	155	152
55°	137	133	120	106	101	123
65°	81	77	69	71	59	80
75°	33	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°	397.3	397.3	397.3	397.3	397.3
2.5°	394.6	394.6	394.6	394.1	394.1
5°	390.4	390.0	390.0	389.5	389.5
7.5°	387.2	386.8	386.3	385.8	384.9
10°	382.6	382.6	382.2	379.9	379.4
12.5°	375.3	374.8	373.0	369.8	368.8
15°	365.2	365.2	361.5	357.8	356.4
17.5°	354.1	353.7	349.1	345.4	343.6
20°	342.2	341.3	336.7	330.7	327.5
22.5°	328.9	328.9	323.4	315.6	312.3
25°	316.5	314.6	309.6	298.6	290.3
27.5°	302.2	299.5	294.0	278.4	268.7
30°	286.6	285.2	277.4	257.2	249.9
32.5°	271.9	269.6	261.4	240.2	234.3
35°	256.8	254.9	242.5	224.2	218.6
37.5°	241.6	239.3	223.7	209.0	202.1
40°	226.5	223.7	206.7	193.4	186.0
42.5°	212.2	208.5	192.0	177.8	169.5
45°	197.1	192.9	176.4	161.7	155.3
47.5°	181.9	178.2	163.1	147.9	140.6
50°	165.8	162.6	148.8	133.7	125.9
52.5°	152.5	147.4	134.1	119.0	112.5
55°	136.9	132.7	120.3	106.1	100.6
57.5°	122.6	118.5	107.0	93.7	89.1
60°	109.3	103.3	93.7	82.2	78.5
62.5°	94.6	90.0	81.8	72.1	76.7
65°	81.3	76.7	69.4	70.7	58.8
67.5°	66.6	64.3	57.9	51.4	49.6
70°	54.2	51.4	49.1	42.3	40.4
72.5°	43.2	40.4	37.2	33.5	32.2
75°	32.6	30.3	28.5	27.1	29.9
77.5°	22.5	21.6	20.2	18.8	18.4
80°	14.7	14.2	13.8	13.3	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)