

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: P558945

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-93-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558945
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-LD4-1STD-40-UNV-93-84-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 796.0 lumens
Efficiency: N/A
Efficacy: 95.9 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

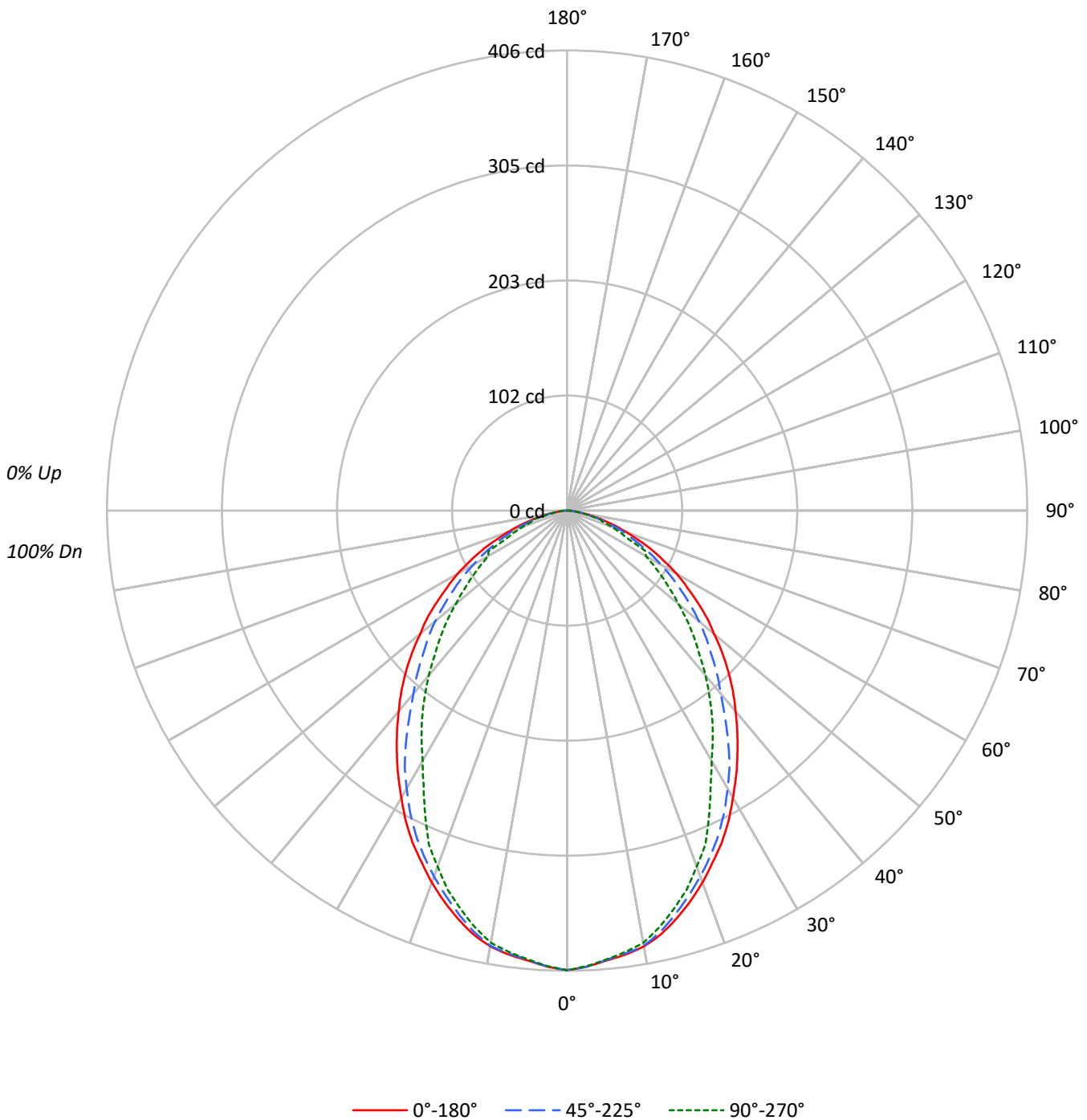
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4365	4365	4365
5°	4305	4300	4295
10°	4268	4263	4232
15°	4153	4111	4054
20°	4000	3936	3828
25°	3836	3752	3519
30°	3636	3519	3169
35°	3443	3252	2932
40°	3247	2963	2667
45°	3061	2740	2411
50°	2833	2544	2150
55°	2622	2305	1927
60°	2403	2058	1727
65°	2114	1803	1528
70°	1740	1580	1300
75°	1385	1210	1268
80°	930	874	812
85°	580	692	815

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3061 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	4.7
10°-20°	103.6	13.0
20°-30°	143.4	18.0
30°-40°	152.9	19.2
40°-50°	139.5	17.5
50°-60°	109.3	13.7
60°-70°	71.2	8.9
70°-80°	31.6	4.0
80°-90°	6.8	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°	284.7	35.8
0°-40°	437.7	55.0
0°-60°	686.4	86.2
0°-90°	796.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	796.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	406	406	406	406	406	
5°	398	398	398	398	398	38
15°	373	373	369	365	364	105
25°	323	321	316	305	296	148
35°	262	260	248	229	223	164
45°	201	197	180	165	158	155
55°	140	136	123	108	103	125
65°	83	78	71	72	60	82
75°	33	31	29	28	30	36
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	405.5	405.5	405.5	405.5	405.5
2.5°	402.7	402.7	402.7	402.2	402.2
5°	398.4	398.0	398.0	397.5	397.5
7.5°	395.2	394.7	394.2	393.8	392.8
10°	390.5	390.5	390.0	387.7	387.2
12.5°	383.0	382.5	380.6	377.3	376.4
15°	372.7	372.7	368.9	365.2	363.8
17.5°	361.4	360.9	356.3	352.5	350.6
20°	349.2	348.3	343.6	337.5	334.2
22.5°	335.6	335.6	330.0	322.0	318.8
25°	323.0	321.1	315.9	304.7	296.3
27.5°	308.4	305.6	300.0	284.1	274.2
30°	292.5	291.1	283.1	262.5	255.0
32.5°	277.5	275.2	266.7	245.2	239.1
35°	262.0	260.2	247.5	228.8	223.1
37.5°	246.6	244.2	228.3	213.3	206.3
40°	231.1	228.3	210.9	197.3	189.8
42.5°	216.6	212.8	195.9	181.4	173.0
45°	201.1	196.9	180.0	165.0	158.4
47.5°	185.6	181.9	166.4	150.9	143.4
50°	169.2	165.9	151.9	136.4	128.4
52.5°	155.6	150.5	136.9	121.4	114.8
55°	139.7	135.5	122.8	108.3	102.7
57.5°	125.2	120.9	109.2	95.6	90.9
60°	111.6	105.5	95.6	83.9	80.2
62.5°	96.6	91.9	83.4	73.6	78.3
65°	83.0	78.3	70.8	72.2	60.0
67.5°	68.0	65.6	59.1	52.5	50.6
70°	55.3	52.5	50.2	43.1	41.3
72.5°	44.1	41.3	38.0	34.2	32.8
75°	33.3	30.9	29.1	27.7	30.5
77.5°	23.0	22.0	20.6	19.2	18.8
80°	15.0	14.5	14.1	13.6	13.1
82.5°	8.9	8.9	8.9	8.9	8.9
85°	4.7	5.2	5.6	6.1	6.6
87.5°	2.8	2.8	3.3	3.8	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)