

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: P558947

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558947
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-93-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 781.0 lumens
Efficiency: N/A
Efficacy: 94.1 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

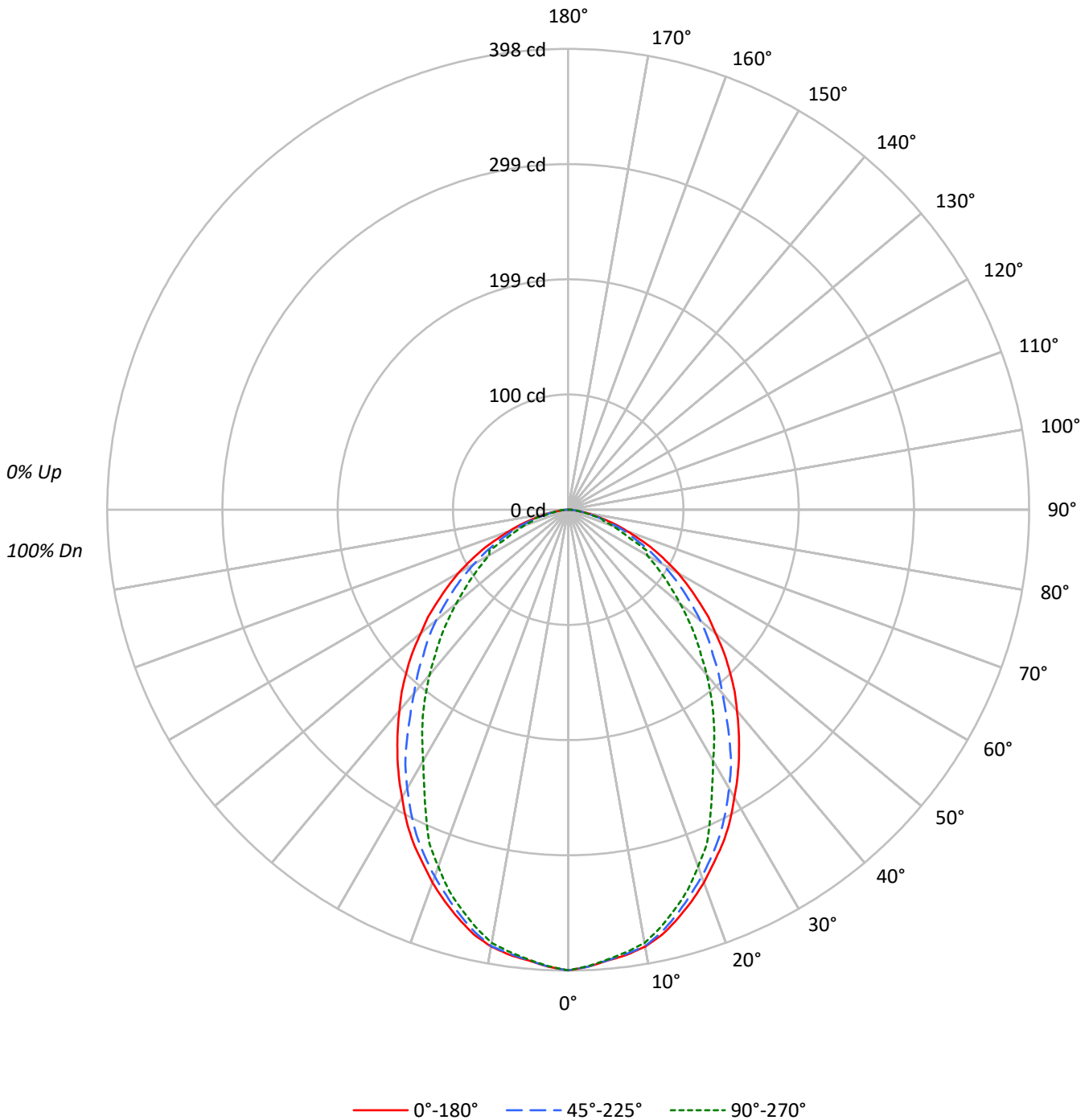
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													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°	4282	4282	4282
5°	4224	4219	4214
10°	4187	4183	4152
15°	4074	4034	3977
20°	3924	3861	3756
25°	3764	3682	3453
30°	3567	3453	3110
35°	3378	3190	2876
40°	3185	2909	2618
45°	3003	2688	2367
50°	2780	2495	2110
55°	2573	2261	1890
60°	2357	2019	1692
65°	2073	1768	1500
70°	1709	1548	1275
75°	1360	1185	1243
80°	911	855	800
85°	568	679	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3003 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	4.7
10°-20°	101.6	13.0
20°-30°	140.7	18.0
30°-40°	150.0	19.2
40°-50°	136.9	17.5
50°-60°	107.2	13.7
60°-70°	69.9	8.9
70°-80°	31.0	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°	279.4	35.8
0°-40°	429.4	55.0
0°-60°	673.5	86.2
0°-90°	781.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	781.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	391	390	390	390	390	37
15°	366	366	362	358	357	103
25°	317	315	310	299	291	145
35°	257	255	243	224	219	161
45°	197	193	177	162	156	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°	397.8	397.8	397.8	397.8	397.8
2.5°	395.1	395.1	395.1	394.6	394.6
5°	390.9	390.5	390.5	390.0	390.0
7.5°	387.7	387.3	386.8	386.3	385.4
10°	383.1	383.1	382.7	380.4	379.9
12.5°	375.8	375.3	373.5	370.2	369.3
15°	365.6	365.6	362.0	358.3	356.9
17.5°	354.6	354.1	349.5	345.9	344.0
20°	342.6	341.7	337.1	331.1	327.9
22.5°	329.3	329.3	323.8	316.0	312.7
25°	316.9	315.0	310.0	298.9	290.7
27.5°	302.6	299.9	294.3	278.7	269.1
30°	287.0	285.6	277.8	257.6	250.2
32.5°	272.3	270.0	261.7	240.5	234.6
35°	257.1	255.3	242.8	224.4	218.9
37.5°	241.9	239.6	224.0	209.3	202.4
40°	226.7	224.0	207.0	193.6	186.3
42.5°	212.5	208.8	192.2	178.0	169.7
45°	197.3	193.2	176.6	161.9	155.5
47.5°	182.1	178.4	163.3	148.1	140.7
50°	166.0	162.8	149.0	133.8	126.0
52.5°	152.7	147.6	134.3	119.1	112.7
55°	137.1	132.9	120.5	106.2	100.7
57.5°	122.8	118.7	107.2	93.8	89.2
60°	109.5	103.5	93.8	82.3	78.6
62.5°	94.7	90.1	81.9	72.2	76.8
65°	81.4	76.8	69.4	70.8	58.9
67.5°	66.7	64.4	57.9	51.5	49.7
70°	54.3	51.5	49.2	42.3	40.5
72.5°	43.2	40.5	37.3	33.6	32.2
75°	32.7	30.4	28.5	27.1	29.9
77.5°	22.5	21.6	20.2	18.9	18.4
80°	14.7	14.3	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)