

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: P558692

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-93-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558692
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-LD4-1LO-35-UNV-93-86-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 477.0 lumens
Efficiency: N/A
Efficacy: 82.2 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

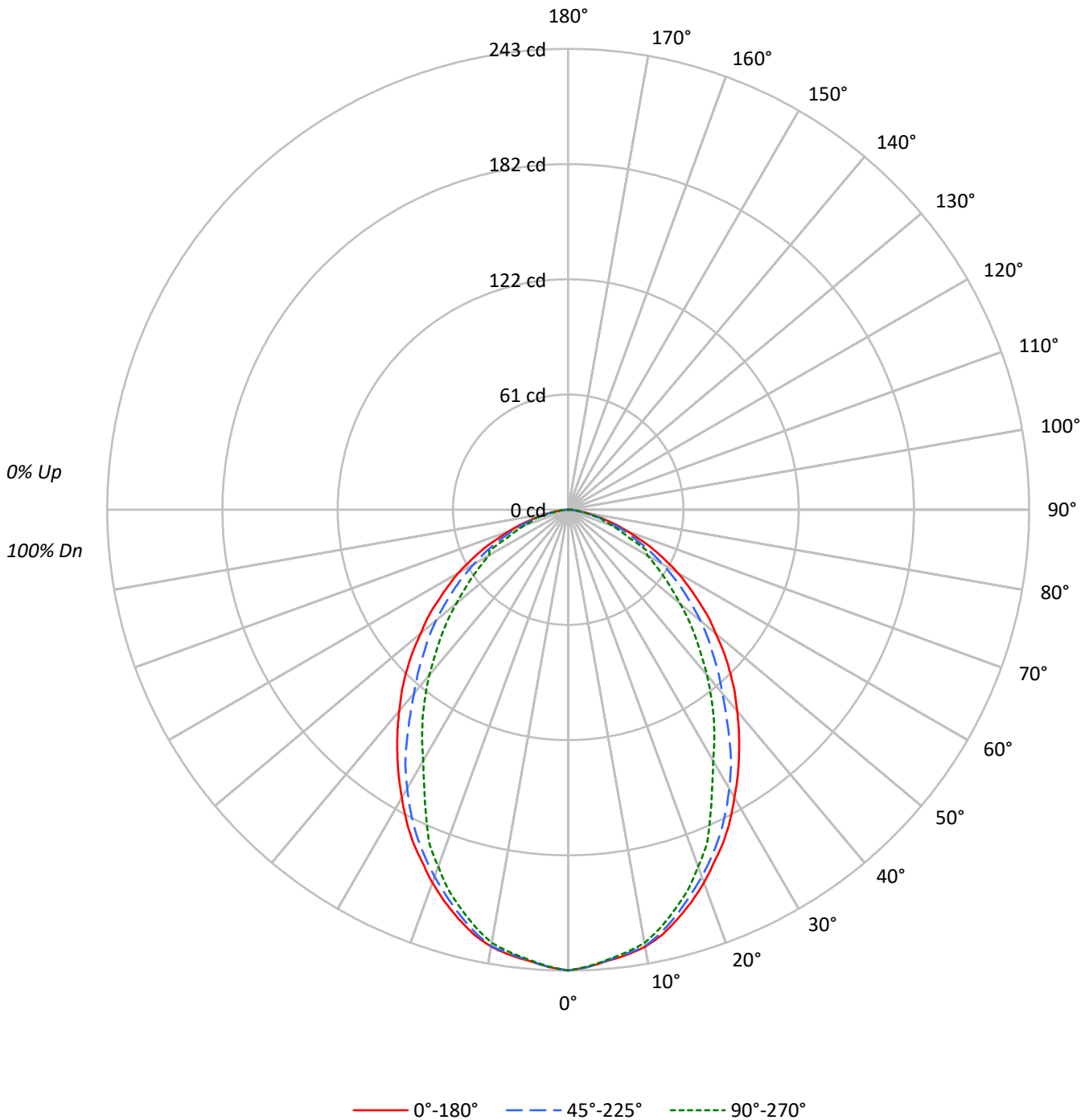
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2616	2616	2616
5°	2580	2577	2574
10°	2558	2554	2536
15°	2488	2464	2429
20°	2397	2359	2294
25°	2298	2248	2108
30°	2179	2109	1899
35°	2063	1949	1757
40°	1946	1776	1599
45°	1834	1643	1445
50°	1698	1524	1289
55°	1571	1381	1154
60°	1440	1234	1033
65°	1266	1080	917
70°	1042	947	777
75°	828	724	761
80°	558	521	490
85°	346	420	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1834 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	4.7
10°-20°	62.1	13.0
20°-30°	85.9	18.0
30°-40°	91.6	19.2
40°-50°	83.6	17.5
50°-60°	65.5	13.7
60°-70°	42.7	8.9
70°-80°	18.9	4.0
80°-90°	4.1	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°	170.6	35.8
0°-40°	262.3	55.0
0°-60°	411.3	86.2
0°-90°	477.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	477.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	243	243	243	243	243	
5°	239	238	238	238	238	23
15°	223	223	221	219	218	63
25°	194	192	189	183	178	89
35°	157	156	148	137	134	98
45°	120	118	108	99	95	93
55°	84	81	74	65	62	75
65°	50	47	42	43	36	49
75°	20	18	17	17	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	243.0	243.0	243.0	243.0	243.0
2.5°	241.3	241.3	241.3	241.0	241.0
5°	238.8	238.5	238.5	238.2	238.2
7.5°	236.8	236.5	236.2	236.0	235.4
10°	234.0	234.0	233.7	232.3	232.0
12.5°	229.5	229.2	228.1	226.1	225.6
15°	223.3	223.3	221.1	218.8	218.0
17.5°	216.6	216.3	213.5	211.2	210.1
20°	209.3	208.7	205.9	202.2	200.3
22.5°	201.1	201.1	197.8	193.0	191.0
25°	193.5	192.4	189.3	182.6	177.5
27.5°	184.8	183.1	179.8	170.2	164.3
30°	175.3	174.4	169.7	157.3	152.8
32.5°	166.3	164.9	159.8	146.9	143.3
35°	157.0	155.9	148.3	137.1	133.7
37.5°	147.8	146.3	136.8	127.8	123.6
40°	138.5	136.8	126.4	118.3	113.8
42.5°	129.8	127.5	117.4	108.7	103.7
45°	120.5	118.0	107.9	98.9	94.9
47.5°	111.2	109.0	99.7	90.4	86.0
50°	101.4	99.4	91.0	81.7	77.0
52.5°	93.3	90.2	82.0	72.8	68.8
55°	83.7	81.2	73.6	64.9	61.5
57.5°	75.0	72.5	65.4	57.3	54.5
60°	66.9	63.2	57.3	50.3	48.0
62.5°	57.9	55.1	50.0	44.1	46.9
65°	49.7	46.9	42.4	43.3	36.0
67.5°	40.7	39.3	35.4	31.5	30.3
70°	33.1	31.5	30.1	25.8	24.7
72.5°	26.4	24.7	22.8	20.5	19.7
75°	19.9	18.5	17.4	16.6	18.3
77.5°	13.8	13.2	12.4	11.5	11.2
80°	9.0	8.7	8.4	8.1	7.9
82.5°	5.3	5.3	5.3	5.3	5.3
85°	2.8	3.1	3.4	3.7	3.9
87.5°	1.7	1.7	2.0	2.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)