

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: P558678

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558678
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-82-87-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 429.0 lumens
Efficiency: N/A
Efficacy: 74.0 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

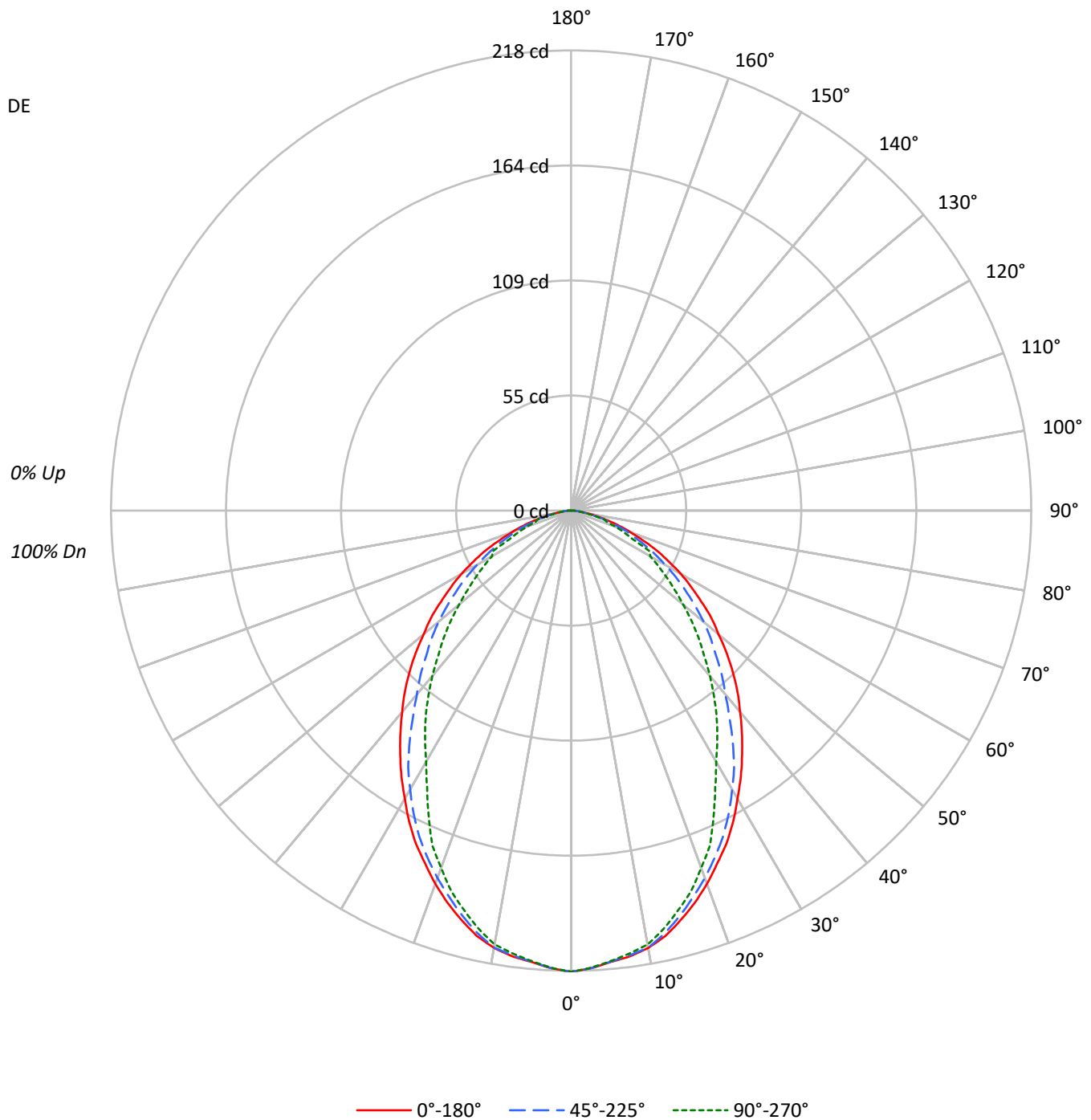
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2352	2352	2352
5°	2320	2318	2314
10°	2300	2297	2281
15°	2238	2215	2184
20°	2156	2121	2063
25°	2068	2023	1897
30°	1959	1897	1708
35°	1855	1753	1581
40°	1749	1598	1437
45°	1650	1477	1300
50°	1527	1371	1159
55°	1413	1242	1038
60°	1294	1109	930
65°	1138	970	823
70°	938	850	699
75°	744	653	682
80°	502	471	440
85°	309	371	432

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1650 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.3	4.7
10°-20°	55.8	13.0
20°-30°	77.3	18.0
30°-40°	82.4	19.2
40°-50°	75.2	17.5
50°-60°	58.9	13.7
60°-70°	38.4	8.9
70°-80°	17.0	4.0
80°-90°	3.6	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°	153.5	35.8
0°-40°	235.9	55.0
0°-60°	369.9	86.2
0°-90°	429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	215	214	214	214	214	20
15°	201	201	199	197	196	56
25°	174	173	170	164	160	80
35°	141	140	133	123	120	88
45°	108	106	97	89	85	83
55°	75	73	66	58	55	68
65°	45	42	38	39	32	44
75°	18	17	16	15	16	19
85°	2	3	3	3	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	218.5	218.5	218.5	218.5	218.5
2.5°	217.0	217.0	217.0	216.8	216.8
5°	214.7	214.5	214.5	214.2	214.2
7.5°	213.0	212.7	212.5	212.2	211.7
10°	210.4	210.4	210.2	208.9	208.7
12.5°	206.4	206.1	205.1	203.4	202.9
15°	200.8	200.8	198.8	196.8	196.0
17.5°	194.8	194.5	192.0	190.0	189.0
20°	188.2	187.7	185.2	181.9	180.1
22.5°	180.9	180.9	177.9	173.6	171.8
25°	174.1	173.1	170.3	164.2	159.7
27.5°	166.2	164.7	161.7	153.1	147.8
30°	157.6	156.9	152.6	141.5	137.4
32.5°	149.6	148.3	143.7	132.1	128.8
35°	141.2	140.2	133.4	123.3	120.3
37.5°	132.9	131.6	123.0	114.9	111.2
40°	124.5	123.0	113.7	106.4	102.3
42.5°	116.7	114.7	105.6	97.8	93.2
45°	108.4	106.1	97.0	88.9	85.4
47.5°	100.0	98.0	89.7	81.3	77.3
50°	91.2	89.4	81.9	73.5	69.2
52.5°	83.9	81.1	73.8	65.4	61.9
55°	75.3	73.0	66.2	58.4	55.3
57.5°	67.5	65.2	58.9	51.5	49.0
60°	60.1	56.8	51.5	45.2	43.2
62.5°	52.0	49.5	45.0	39.7	42.2
65°	44.7	42.2	38.1	38.9	32.3
67.5°	36.6	35.4	31.8	28.3	27.3
70°	29.8	28.3	27.0	23.2	22.2
72.5°	23.7	22.2	20.5	18.4	17.7
75°	17.9	16.7	15.7	14.9	16.4
77.5°	12.4	11.9	11.1	10.4	10.1
80°	8.1	7.8	7.6	7.3	7.1
82.5°	4.8	4.8	4.8	4.8	4.8
85°	2.5	2.8	3.0	3.3	3.5
87.5°	1.5	1.5	1.8	2.0	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)