

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: P558864

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558864
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-35-UNV-82-84-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 612.0 lumens
Efficiency: N/A
Efficacy: 73.7 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

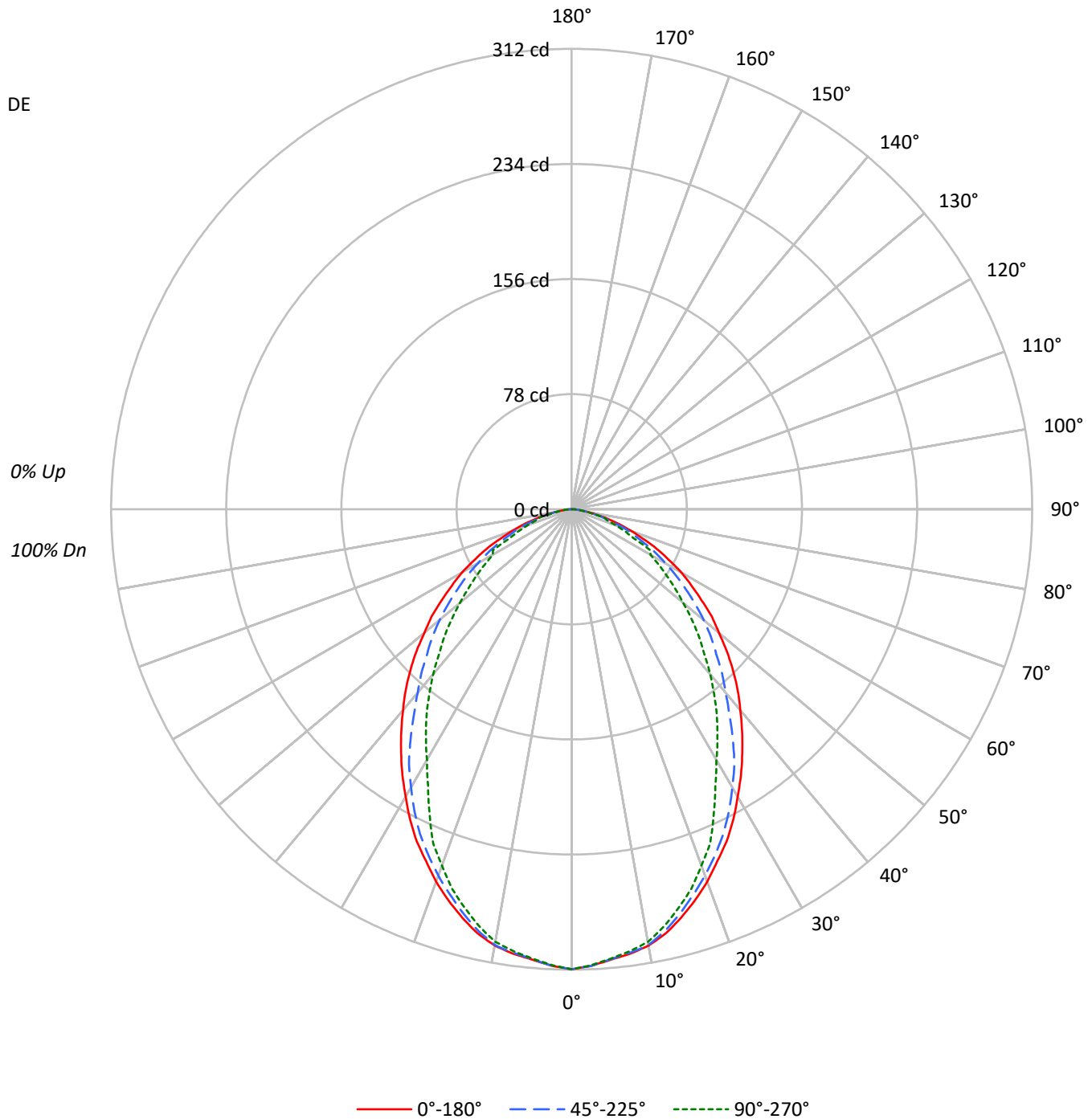
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3355	3355	3355
5°	3310	3306	3302
10°	3281	3278	3254
15°	3193	3160	3117
20°	3076	3026	2944
25°	2949	2885	2706
30°	2795	2706	2437
35°	2648	2501	2254
40°	2497	2279	2051
45°	2353	2107	1854
50°	2179	1956	1653
55°	2016	1772	1481
60°	1847	1582	1326
65°	1625	1386	1174
70°	1338	1215	998
75°	1065	927	973
80°	713	669	626
85°	445	531	618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2353 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	4.7
10°-20°	79.6	13.0
20°-30°	110.3	18.0
30°-40°	117.6	19.2
40°-50°	107.3	17.5
50°-60°	84.0	13.7
60°-70°	54.8	8.9
70°-80°	24.3	4.0
80°-90°	5.2	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°	218.9	35.8
0°-40°	336.5	55.0
0°-60°	527.8	86.2
0°-90°	612.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	612.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	312	312	312	312	312	
5°	306	306	306	306	306	29
15°	286	286	284	281	280	81
25°	248	247	243	234	228	114
35°	202	200	190	176	172	126
45°	155	151	138	127	122	119
55°	107	104	94	83	79	96
65°	64	60	54	56	46	63
75°	26	24	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	311.7	311.7	311.7	311.7	311.7
2.5°	309.6	309.6	309.6	309.2	309.2
5°	306.3	306.0	306.0	305.6	305.6
7.5°	303.8	303.5	303.1	302.7	302.0
10°	300.2	300.2	299.9	298.0	297.7
12.5°	294.4	294.1	292.6	290.1	289.4
15°	286.5	286.5	283.6	280.8	279.7
17.5°	277.9	277.5	273.9	271.0	269.6
20°	268.5	267.8	264.2	259.5	257.0
22.5°	258.0	258.0	253.7	247.6	245.1
25°	248.3	246.9	242.9	234.3	227.8
27.5°	237.1	235.0	230.7	218.4	210.8
30°	224.9	223.8	217.7	201.8	196.1
32.5°	213.4	211.6	205.1	188.5	183.8
35°	201.5	200.0	190.3	175.9	171.5
37.5°	189.6	187.8	175.5	164.0	158.6
40°	177.7	175.5	162.2	151.7	146.0
42.5°	166.5	163.6	150.6	139.5	133.0
45°	154.6	151.4	138.4	126.9	121.8
47.5°	142.7	139.8	127.9	116.0	110.3
50°	130.1	127.6	116.8	104.9	98.7
52.5°	119.7	115.7	105.2	93.3	88.3
55°	107.4	104.2	94.4	83.3	78.9
57.5°	96.2	93.0	84.0	73.5	69.9
60°	85.8	81.1	73.5	64.5	61.6
62.5°	74.2	70.6	64.2	56.6	60.2
65°	63.8	60.2	54.4	55.5	46.1
67.5°	52.3	50.5	45.4	40.4	38.9
70°	42.5	40.4	38.6	33.2	31.7
72.5°	33.9	31.7	29.2	26.3	25.2
75°	25.6	23.8	22.3	21.3	23.4
77.5°	17.7	16.9	15.9	14.8	14.4
80°	11.5	11.2	10.8	10.5	10.1
82.5°	6.8	6.8	6.8	6.8	6.8
85°	3.6	4.0	4.3	4.7	5.0
87.5°	2.2	2.2	2.5	2.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)