

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: P563665

Luminaire Tested: FSR-24-4-LD4-4HI-35-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563665
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-24-4-LD4-4HI-35-UNV-82-84-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17806.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

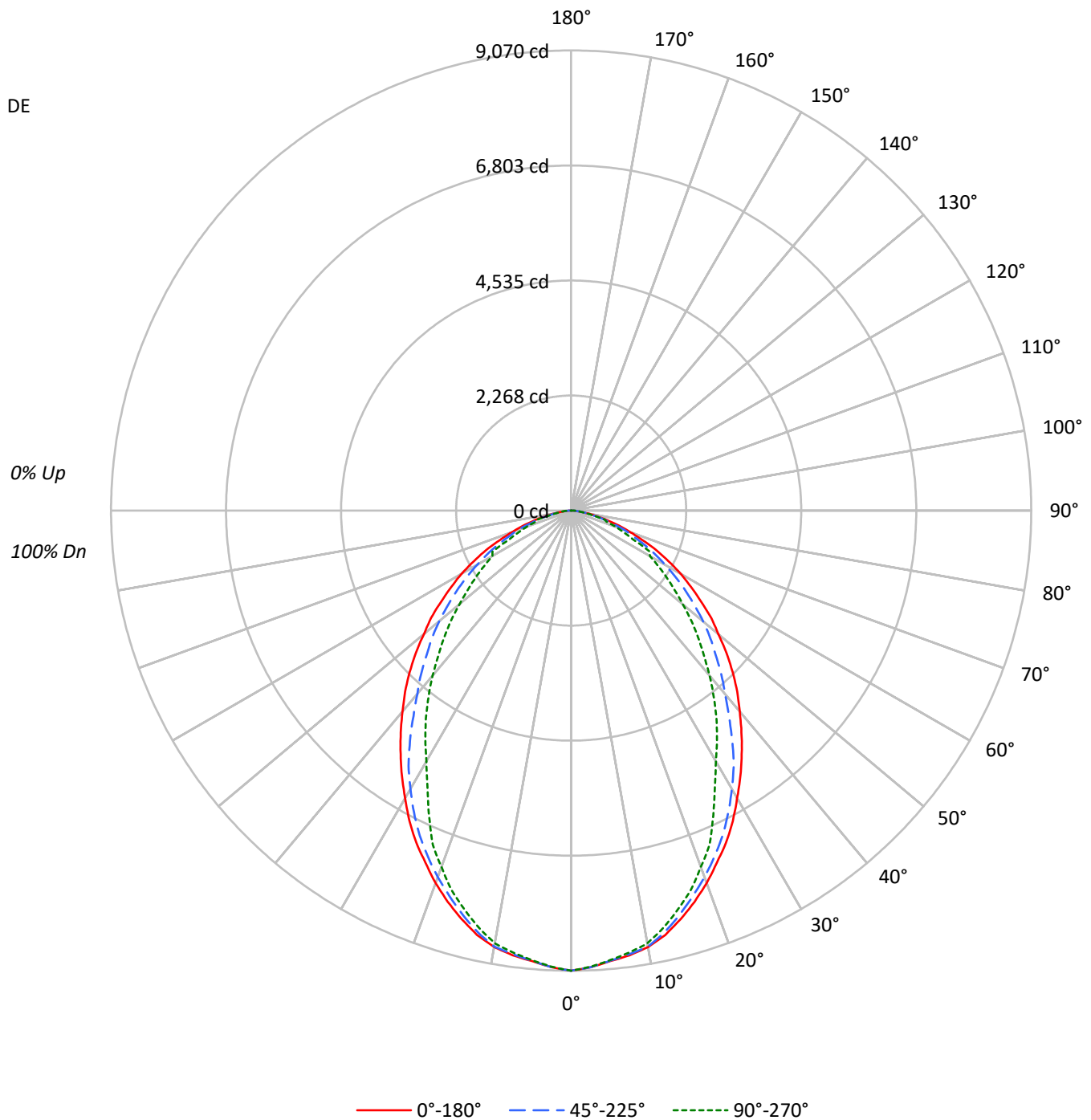
Input Watts (W): 172.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	12204	12204	12204
5°	12038	12024	12010
10°	11934	11919	11833
15°	11612	11495	11334
20°	11185	11005	10705
25°	10726	10492	9838
30°	10166	9840	8862
35°	9628	9094	8198
40°	9080	8288	7459
45°	8560	7662	6744
50°	7923	7111	6014
55°	7330	6445	5387
60°	6716	5756	4825
65°	5909	5041	4273
70°	4867	4414	3630
75°	3870	3380	3543
80°	2600	2438	2275
85°	1619	1942	2266

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8560 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	844.3	4.7
10°-20°	2317.1	13.0
20°-30°	3207.9	18.0
30°-40°	3420.6	19.2
40°-50°	3120.6	17.5
50°-60°	2444.7	13.7
60°-70°	1593.3	8.9
70°-80°	705.9	4.0
80°-90°	151.6	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°	6369.4	35.8
0°-40°	9789.9	55.0
0°-60°	15355.2	86.2
0°-90°	17806.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17806.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9070	9070	9070	9070	9070	
5°	8913	8902	8902	8892	8892	846
15°	8336	8336	8252	8168	8137	2344
25°	7225	7183	7067	6816	6627	3317
35°	5862	5820	5536	5117	4991	3665
45°	4498	4404	4026	3691	3544	3465
55°	3125	3030	2747	2422	2296	2803
65°	1856	1751	1583	1615	1342	1829
75°	744	692	650	619	682	798
85°	105	115	126	136	147	145
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9070.1	9070.1	9070.1	9070.1	9070.1
2.5°	9007.2	9007.2	9007.2	8996.7	8996.7
5°	8912.9	8902.4	8902.4	8891.9	8891.9
7.5°	8839.5	8829.0	8818.5	8808.0	8787.0
10°	8734.6	8734.6	8724.1	8671.7	8661.2
12.5°	8566.8	8556.3	8514.4	8441.0	8420.0
15°	8336.1	8336.1	8252.3	8168.4	8136.9
17.5°	8084.5	8074.0	7969.1	7885.3	7843.3
20°	7811.9	7790.9	7686.0	7549.7	7476.3
22.5°	7507.8	7507.8	7381.9	7203.7	7130.3
25°	7224.7	7182.7	7067.4	6815.7	6627.0
27.5°	6899.6	6836.7	6710.9	6354.3	6134.1
30°	6543.1	6511.6	6333.4	5872.0	5704.2
32.5°	6207.5	6155.1	5966.4	5484.0	5347.7
35°	5861.5	5819.6	5536.5	5117.0	4991.2
37.5°	5515.5	5463.1	5106.5	4771.0	4613.7
40°	5169.5	5106.5	4718.6	4414.5	4246.7
42.5°	4844.4	4760.5	4383.0	4058.0	3869.2
45°	4498.4	4404.0	4026.5	3691.0	3544.2
47.5°	4152.3	4068.5	3722.4	3376.4	3208.6
50°	3785.3	3711.9	3397.4	3051.3	2873.1
52.5°	3481.3	3365.9	3061.8	2715.8	2569.0
55°	3124.7	3030.4	2747.3	2422.2	2296.4
57.5°	2799.7	2705.3	2443.2	2139.1	2034.2
60°	2495.6	2359.3	2139.1	1876.9	1793.1
62.5°	2160.1	2055.2	1866.5	1646.3	1751.1
65°	1856.0	1751.1	1583.3	1614.8	1342.2
67.5°	1520.4	1468.0	1321.2	1174.4	1132.5
70°	1237.3	1174.4	1122.0	964.7	922.7
72.5°	985.7	922.7	849.3	765.5	734.0
75°	744.5	692.1	650.1	618.7	681.6
77.5°	513.8	492.8	461.4	429.9	419.4
80°	335.5	325.1	314.6	304.1	293.6
82.5°	199.2	199.2	199.2	199.2	199.2
85°	104.9	115.3	125.8	136.3	146.8
87.5°	62.9	62.9	73.4	83.9	94.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)