

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: P563392

Luminaire Tested: FSR-24-4-LD4-3LO-50-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563392
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-LD4-3LO-50-UNV-81-84-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7421.0 lumens
Efficiency: N/A
Efficacy: 105.7 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

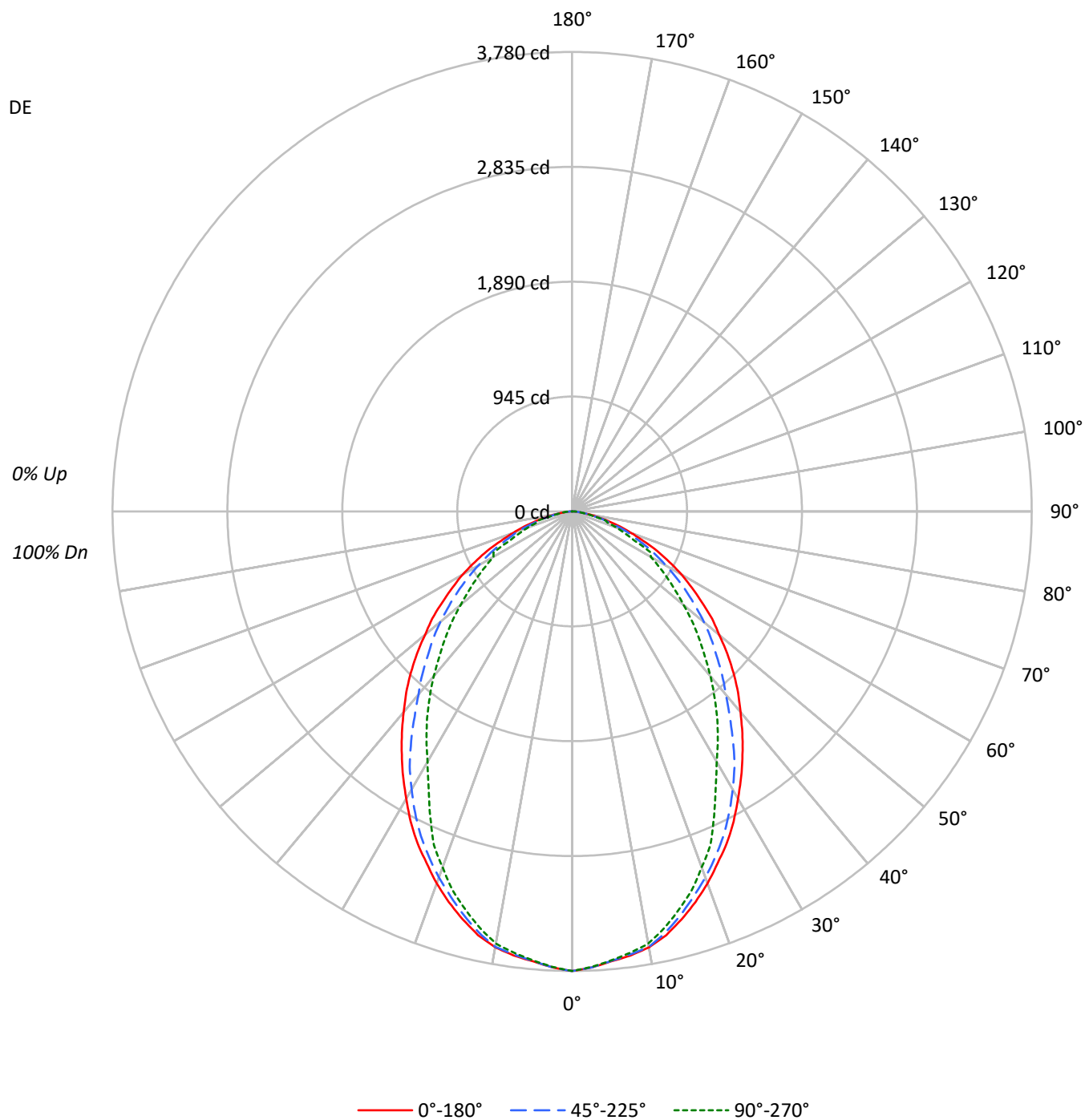
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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°	5086	5086	5086
5°	5017	5011	5005
10°	4974	4968	4932
15°	4839	4791	4724
20°	4662	4587	4461
25°	4470	4373	4100
30°	4237	4101	3693
35°	4013	3790	3417
40°	3784	3454	3109
45°	3567	3193	2811
50°	3302	2964	2506
55°	3055	2686	2245
60°	2799	2399	2011
65°	2463	2101	1781
70°	2029	1840	1513
75°	1613	1408	1477
80°	1083	1016	948
85°	675	809	945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3567 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.9	4.7
10°-20°	965.7	13.0
20°-30°	1337.0	18.0
30°-40°	1425.6	19.2
40°-50°	1300.6	17.5
50°-60°	1018.9	13.7
60°-70°	664.1	8.9
70°-80°	294.2	4.0
80°-90°	63.2	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°	2654.5	35.8
0°-40°	4080.1	55.0
0°-60°	6399.6	86.2
0°-90°	7421.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7421.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3780	3780	3780	3780	3780	
5°	3715	3710	3710	3706	3706	353
15°	3474	3474	3439	3404	3391	977
25°	3011	2994	2946	2841	2762	1382
35°	2443	2425	2307	2133	2080	1527
45°	1875	1836	1678	1538	1477	1444
55°	1302	1263	1145	1010	957	1168
65°	774	730	660	673	559	762
75°	310	288	271	258	284	333
85°	44	48	52	57	61	61
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3780.2	3780.2	3780.2	3780.2	3780.2
2.5°	3753.9	3753.9	3753.9	3749.6	3749.6
5°	3714.6	3710.2	3710.2	3705.9	3705.9
7.5°	3684.0	3679.6	3675.3	3670.9	3662.2
10°	3640.3	3640.3	3635.9	3614.1	3609.7
12.5°	3570.4	3566.0	3548.5	3518.0	3509.2
15°	3474.2	3474.2	3439.3	3404.3	3391.2
17.5°	3369.4	3365.0	3321.3	3286.3	3268.9
20°	3255.7	3247.0	3203.3	3146.5	3115.9
22.5°	3129.0	3129.0	3076.6	3002.3	2971.7
25°	3011.0	2993.5	2945.5	2840.6	2761.9
27.5°	2875.5	2849.3	2796.9	2648.3	2556.5
30°	2727.0	2713.8	2639.6	2447.3	2377.3
32.5°	2587.1	2565.3	2486.6	2285.6	2228.8
35°	2442.9	2425.4	2307.4	2132.6	2080.2
37.5°	2298.7	2276.8	2128.3	1988.4	1922.9
40°	2154.5	2128.3	1966.6	1839.8	1769.9
42.5°	2019.0	1984.0	1826.7	1691.2	1612.6
45°	1874.8	1835.5	1678.1	1538.3	1477.1
47.5°	1730.6	1695.6	1551.4	1407.2	1337.3
50°	1577.6	1547.0	1415.9	1271.7	1197.4
52.5°	1450.9	1402.8	1276.1	1131.9	1070.7
55°	1302.3	1263.0	1145.0	1009.5	957.1
57.5°	1166.8	1127.5	1018.2	891.5	847.8
60°	1040.1	983.3	891.5	782.3	747.3
62.5°	900.2	856.5	777.9	686.1	729.8
65°	773.5	729.8	659.9	673.0	559.4
67.5°	633.7	611.8	550.6	489.5	472.0
70°	515.7	489.5	467.6	402.1	384.6
72.5°	410.8	384.6	354.0	319.0	305.9
75°	310.3	288.4	270.9	257.8	284.1
77.5°	214.1	205.4	192.3	179.2	174.8
80°	139.8	135.5	131.1	126.7	122.4
82.5°	83.0	83.0	83.0	83.0	83.0
85°	43.7	48.1	52.4	56.8	61.2
87.5°	26.2	26.2	30.6	35.0	39.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)