

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: P562655

Luminaire Tested: FSR-24-4-LD4-2HI-50-UNV-82-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562655
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-LD4-2HI-50-UNV-82-97-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8927.0 lumens
Efficiency: N/A
Efficacy: 103.3 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

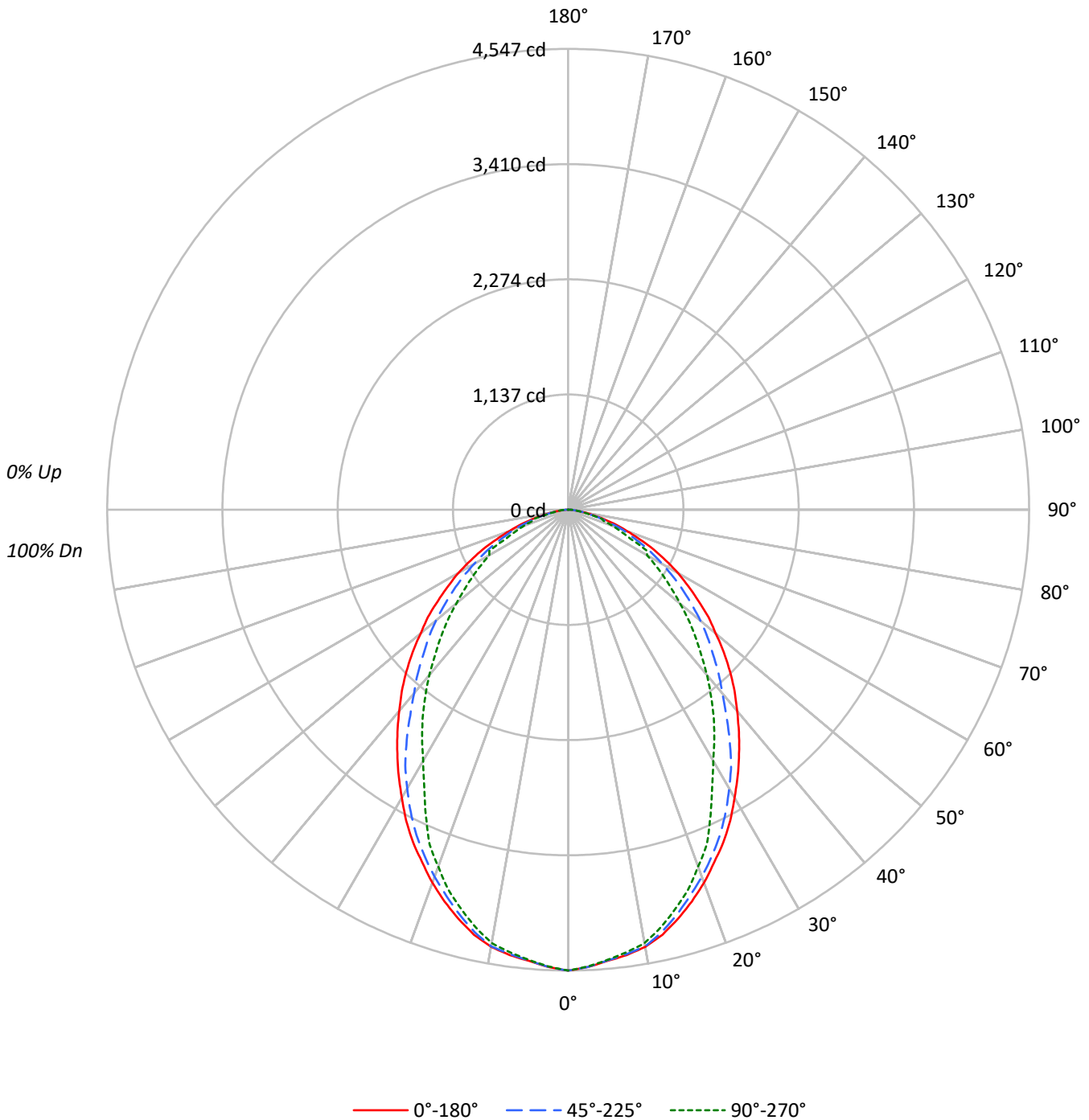
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6118	6118	6118
5°	6035	6028	6021
10°	5983	5976	5933
15°	5822	5763	5682
20°	5608	5517	5367
25°	5377	5260	4932
30°	5097	4933	4443
35°	4827	4559	4110
40°	4552	4155	3740
45°	4291	3841	3381
50°	3972	3565	3015
55°	3675	3231	2701
60°	3367	2886	2419
65°	2962	2527	2142
70°	2440	2213	1820
75°	1940	1694	1776
80°	1303	1222	1141
85°	812	974	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4291 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	423.3	4.7
10°-20°	1161.7	13.0
20°-30°	1608.3	18.0
30°-40°	1714.9	19.2
40°-50°	1564.5	17.5
50°-60°	1225.7	13.7
60°-70°	798.8	8.9
70°-80°	353.9	4.0
80°-90°	76.0	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°	3193.3	35.8
0°-40°	4908.2	55.0
0°-60°	7698.3	86.2
0°-90°	8927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4547	4547	4547	4547	4547	
5°	4468	4463	4463	4458	4458	424
15°	4179	4179	4137	4095	4079	1175
25°	3622	3601	3543	3417	3322	1663
35°	2939	2918	2776	2565	2502	1837
45°	2255	2208	2019	1850	1777	1737
55°	1567	1519	1377	1214	1151	1405
65°	930	878	794	810	673	917
75°	373	347	326	310	342	400
85°	53	58	63	68	74	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4547.3	4547.3	4547.3	4547.3	4547.3
2.5°	4515.8	4515.8	4515.8	4510.5	4510.5
5°	4468.4	4463.2	4463.2	4457.9	4457.9
7.5°	4431.6	4426.4	4421.1	4415.9	4405.4
10°	4379.1	4379.1	4373.8	4347.5	4342.3
12.5°	4295.0	4289.7	4268.7	4231.9	4221.4
15°	4179.3	4179.3	4137.2	4095.2	4079.4
17.5°	4053.1	4047.9	3995.3	3953.3	3932.2
20°	3916.5	3905.9	3853.4	3785.0	3748.2
22.5°	3764.0	3764.0	3700.9	3611.6	3574.8
25°	3622.1	3601.0	3543.2	3417.0	3322.4
27.5°	3459.1	3427.6	3364.5	3185.7	3075.3
30°	3280.4	3264.6	3175.2	2943.9	2859.8
32.5°	3112.1	3085.9	2991.2	2749.4	2681.1
35°	2938.7	2917.6	2775.7	2565.4	2502.3
37.5°	2765.2	2738.9	2560.2	2391.9	2313.1
40°	2591.7	2560.2	2365.6	2213.2	2129.1
42.5°	2428.7	2386.7	2197.4	2034.5	1939.8
45°	2255.2	2207.9	2018.7	1850.5	1776.9
47.5°	2081.8	2039.7	1866.2	1692.8	1608.6
50°	1897.8	1861.0	1703.3	1529.8	1440.4
52.5°	1745.3	1687.5	1535.0	1361.6	1288.0
55°	1566.6	1519.3	1377.3	1214.4	1151.3
57.5°	1403.6	1356.3	1224.9	1072.4	1019.9
60°	1251.2	1182.8	1072.4	941.0	898.9
62.5°	1082.9	1030.4	935.7	825.3	877.9
65°	930.5	877.9	793.8	809.6	672.9
67.5°	762.3	736.0	662.4	588.8	567.8
70°	620.3	588.8	562.5	483.6	462.6
72.5°	494.2	462.6	425.8	383.8	368.0
75°	373.2	347.0	325.9	310.2	341.7
77.5°	257.6	247.1	231.3	215.5	210.3
80°	168.2	163.0	157.7	152.5	147.2
82.5°	99.9	99.9	99.9	99.9	99.9
85°	52.6	57.8	63.1	68.3	73.6
87.5°	31.5	31.5	36.8	42.1	47.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)