

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: P562887

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562887
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-LD4-2STD-35-UNV-81-87-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6952.0 lumens
Efficiency: N/A
Efficacy: 104.4 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

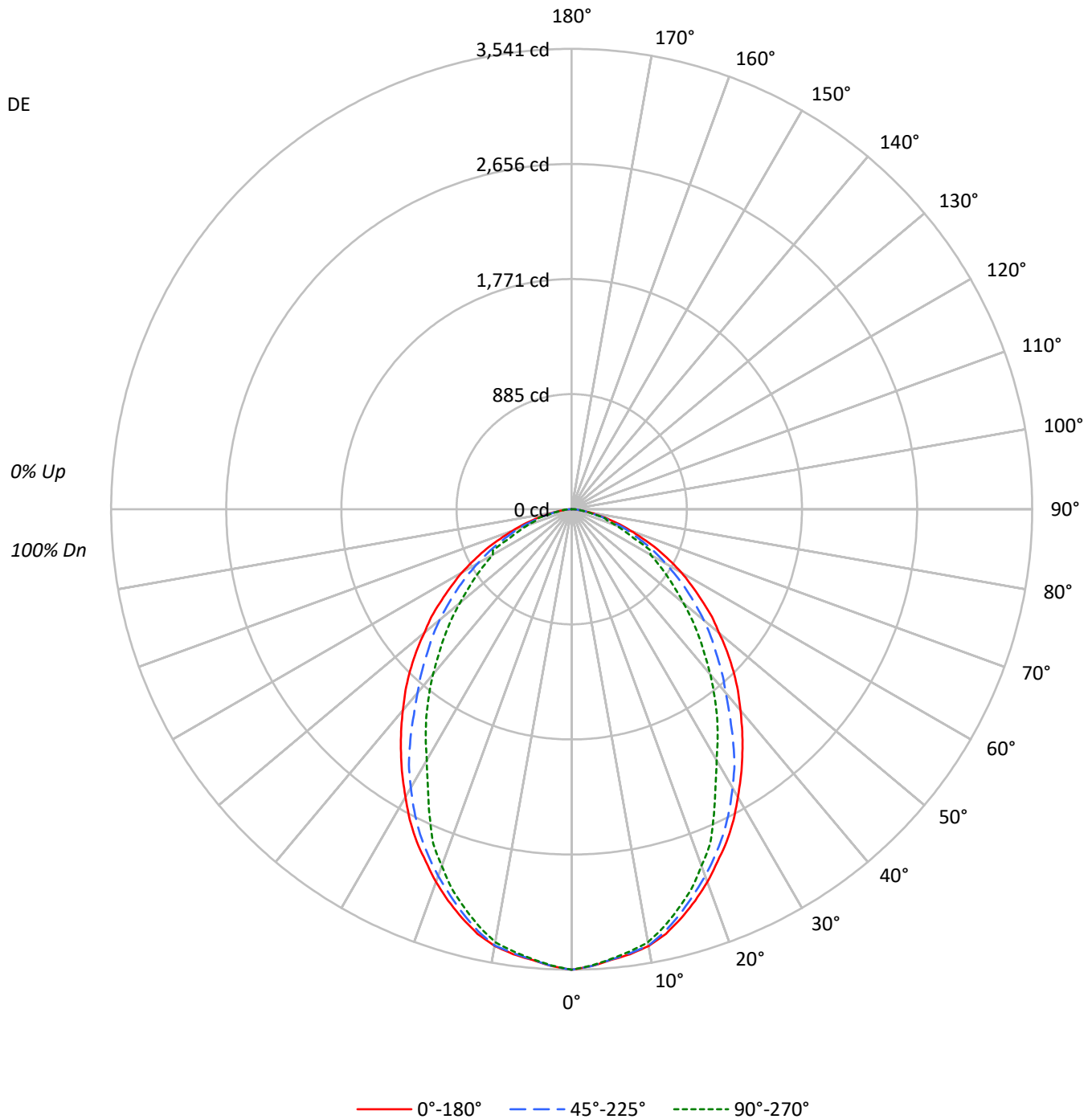
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4765	4765	4765
5°	4700	4695	4689
10°	4659	4654	4620
15°	4534	4488	4425
20°	4367	4297	4180
25°	4188	4096	3841
30°	3969	3842	3460
35°	3759	3551	3201
40°	3545	3236	2912
45°	3342	2991	2633
50°	3094	2776	2348
55°	2862	2516	2103
60°	2622	2248	1884
65°	2307	1968	1668
70°	1900	1723	1417
75°	1511	1319	1383
80°	1015	951	888
85°	631	758	885

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3342 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.6	4.7
10°-20°	904.7	13.0
20°-30°	1252.5	18.0
30°-40°	1335.5	19.2
40°-50°	1218.4	17.5
50°-60°	954.5	13.7
60°-70°	622.1	8.9
70°-80°	275.6	4.0
80°-90°	59.2	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°	2486.8	35.8
0°-40°	3822.3	55.0
0°-60°	5995.1	86.2
0°-90°	6952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3541	3541	3541	3541	3541	
5°	3480	3476	3476	3472	3472	330
15°	3255	3255	3222	3189	3177	915
25°	2821	2804	2759	2661	2587	1295
35°	2288	2272	2162	1998	1949	1431
45°	1756	1720	1572	1441	1384	1353
55°	1220	1183	1073	946	897	1094
65°	725	684	618	630	524	714
75°	291	270	254	242	266	312
85°	41	45	49	53	57	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3541.3	3541.3	3541.3	3541.3	3541.3
2.5°	3516.7	3516.7	3516.7	3512.6	3512.6
5°	3479.8	3475.8	3475.8	3471.7	3471.7
7.5°	3451.2	3447.1	3443.0	3438.9	3430.7
10°	3410.2	3410.2	3406.2	3385.7	3381.6
12.5°	3344.7	3340.7	3324.3	3295.6	3287.4
15°	3254.7	3254.7	3221.9	3189.2	3176.9
17.5°	3156.4	3152.3	3111.4	3078.6	3062.3
20°	3050.0	3041.8	3000.9	2947.6	2919.0
22.5°	2931.3	2931.3	2882.1	2812.5	2783.9
25°	2820.7	2804.3	2759.3	2661.1	2587.4
27.5°	2693.8	2669.2	2620.1	2480.9	2395.0
30°	2554.6	2542.3	2472.7	2292.6	2227.1
32.5°	2423.6	2403.1	2329.5	2141.1	2087.9
35°	2288.5	2272.1	2161.6	1997.8	1948.7
37.5°	2153.4	2132.9	1993.7	1862.7	1801.3
40°	2018.3	1993.7	1842.3	1723.5	1658.0
42.5°	1891.4	1858.6	1711.3	1584.4	1510.7
45°	1756.3	1719.5	1572.1	1441.1	1383.8
47.5°	1621.2	1588.4	1453.3	1318.2	1252.7
50°	1477.9	1449.3	1326.4	1191.3	1121.7
52.5°	1359.2	1314.2	1195.4	1060.3	1003.0
55°	1220.0	1183.1	1072.6	945.7	896.6
57.5°	1093.1	1056.2	953.9	835.2	794.2
60°	974.4	921.1	835.2	732.8	700.1
62.5°	843.4	802.4	728.7	642.7	683.7
65°	724.6	683.7	618.2	630.5	524.0
67.5°	593.6	573.2	515.8	458.5	442.1
70°	483.1	458.5	438.1	376.6	360.3
72.5°	384.8	360.3	331.6	298.9	286.6
75°	290.7	270.2	253.8	241.5	266.1
77.5°	200.6	192.4	180.1	167.9	163.8
80°	131.0	126.9	122.8	118.7	114.6
82.5°	77.8	77.8	77.8	77.8	77.8
85°	40.9	45.0	49.1	53.2	57.3
87.5°	24.6	24.6	28.7	32.8	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)