

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: P562833

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562833
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-LD4-2LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

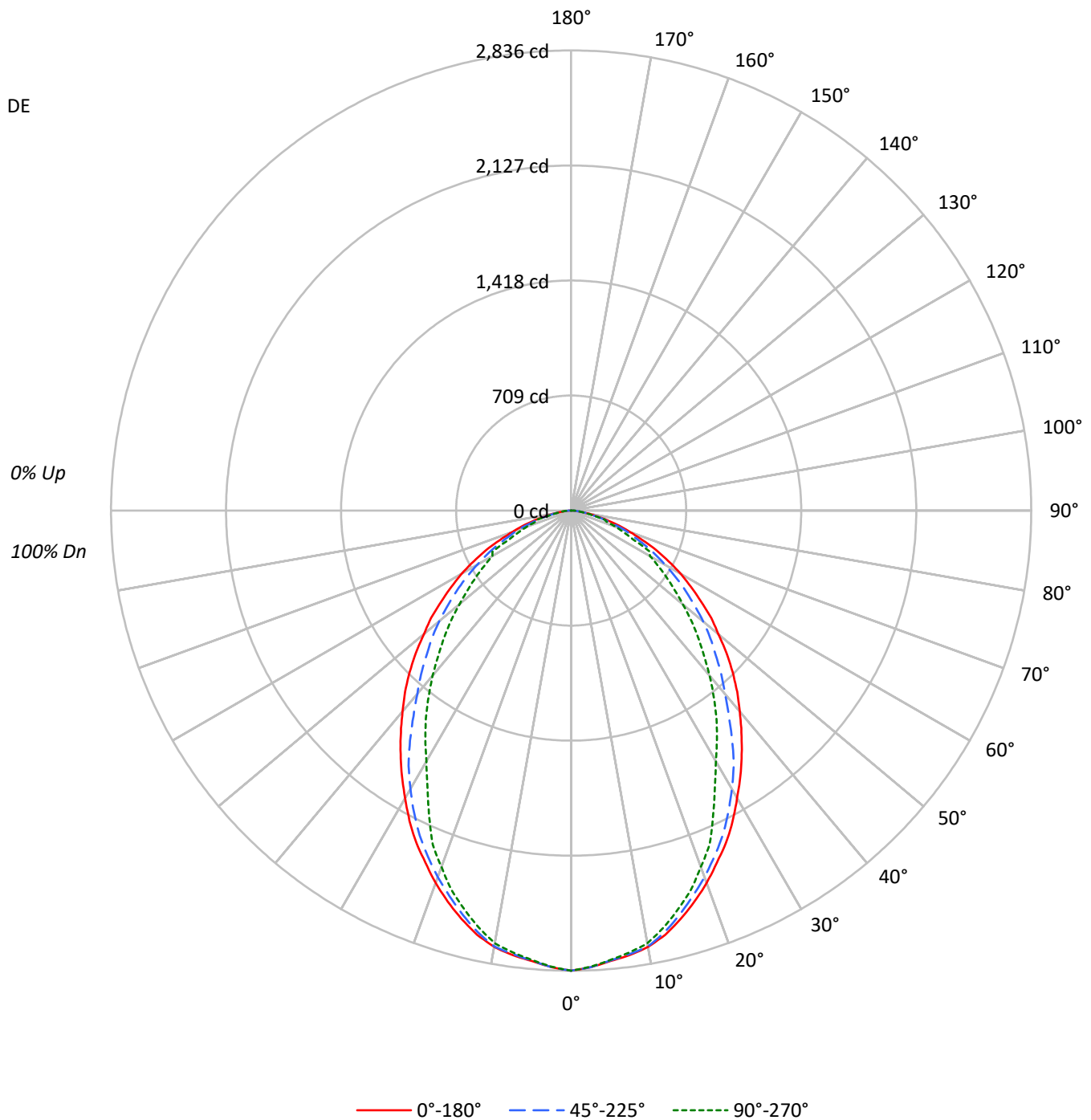
Lumens per Lamp: N/A
Luminaire Lumens: 5567.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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



TEST NUMBER: P562833
CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562833

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-84-EDD

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°	3816	3816	3816
5°	3764	3759	3755
10°	3731	3727	3700
15°	3630	3594	3544
20°	3497	3441	3347
25°	3353	3280	3076
30°	3178	3076	2771
35°	3010	2843	2563
40°	2839	2591	2332
45°	2676	2395	2109
50°	2477	2223	1880
55°	2292	2015	1684
60°	2100	1800	1509
65°	1848	1576	1336
70°	1522	1380	1135
75°	1210	1057	1108
80°	813	762	711
85°	506	607	709

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2676 cd/sqm

TEST NUMBER: P562833

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.0	4.7
10°-20°	724.4	13.0
20°-30°	1002.9	18.0
30°-40°	1069.4	19.2
40°-50°	975.6	17.5
50°-60°	764.3	13.7
60°-70°	498.2	8.9
70°-80°	220.7	4.0
80°-90°	47.4	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°	1991.4	35.8
0°-40°	3060.8	55.0
0°-60°	4800.8	86.2
0°-90°	5567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2836	2836	2836	2836	2836	
5°	2787	2783	2783	2780	2780	265
15°	2606	2606	2580	2554	2544	733
25°	2259	2246	2210	2131	2072	1037
35°	1833	1820	1731	1600	1560	1146
45°	1406	1377	1259	1154	1108	1083
55°	977	947	859	757	718	876
65°	580	548	495	505	420	572
75°	233	216	203	193	213	249
85°	33	36	39	43	46	45
90°	0	0	0	0	0	

TEST NUMBER: P562833

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2835.8	2835.8	2835.8	2835.8	2835.8
2.5°	2816.1	2816.1	2816.1	2812.8	2812.8
5°	2786.6	2783.3	2783.3	2780.0	2780.0
7.5°	2763.6	2760.4	2757.1	2753.8	2747.2
10°	2730.8	2730.8	2727.6	2711.2	2707.9
12.5°	2678.4	2675.1	2662.0	2639.1	2632.5
15°	2606.3	2606.3	2580.0	2553.8	2544.0
17.5°	2527.6	2524.3	2491.5	2465.3	2452.2
20°	2442.4	2435.8	2403.0	2360.4	2337.4
22.5°	2347.3	2347.3	2307.9	2252.2	2229.3
25°	2258.8	2245.7	2209.6	2130.9	2071.9
27.5°	2157.1	2137.5	2098.1	1986.7	1917.8
30°	2045.7	2035.8	1980.1	1835.9	1783.4
32.5°	1940.8	1924.4	1865.4	1714.6	1671.9
35°	1832.6	1819.5	1731.0	1599.8	1560.5
37.5°	1724.4	1708.0	1596.5	1491.6	1442.5
40°	1616.2	1596.5	1475.2	1380.2	1327.7
42.5°	1514.6	1488.4	1370.3	1268.7	1209.7
45°	1406.4	1376.9	1258.9	1154.0	1108.1
47.5°	1298.2	1272.0	1163.8	1055.6	1003.2
50°	1183.5	1160.5	1062.2	954.0	898.3
52.5°	1088.4	1052.3	957.3	849.1	803.2
55°	976.9	947.4	858.9	757.3	718.0
57.5°	875.3	845.8	763.9	668.8	636.0
60°	780.2	737.6	668.8	586.8	560.6
62.5°	675.3	642.6	583.5	514.7	547.5
65°	580.3	547.5	495.0	504.9	419.6
67.5°	475.4	459.0	413.1	367.2	354.1
70°	386.8	367.2	350.8	301.6	288.5
72.5°	308.2	288.5	265.5	239.3	229.5
75°	232.8	216.4	203.3	193.4	213.1
77.5°	160.6	154.1	144.2	134.4	131.1
80°	104.9	101.6	98.3	95.1	91.8
82.5°	62.3	62.3	62.3	62.3	62.3
85°	32.8	36.1	39.3	42.6	45.9
87.5°	19.7	19.7	22.9	26.2	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)