

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: P563585

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563585
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-LD4-3STD-50-UNV-81-84-EDD
Description: 2X4 FSR TROFFER WITH .156 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: 11424.0 lumens
Efficiency: N/A
Efficacy: 114.4 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

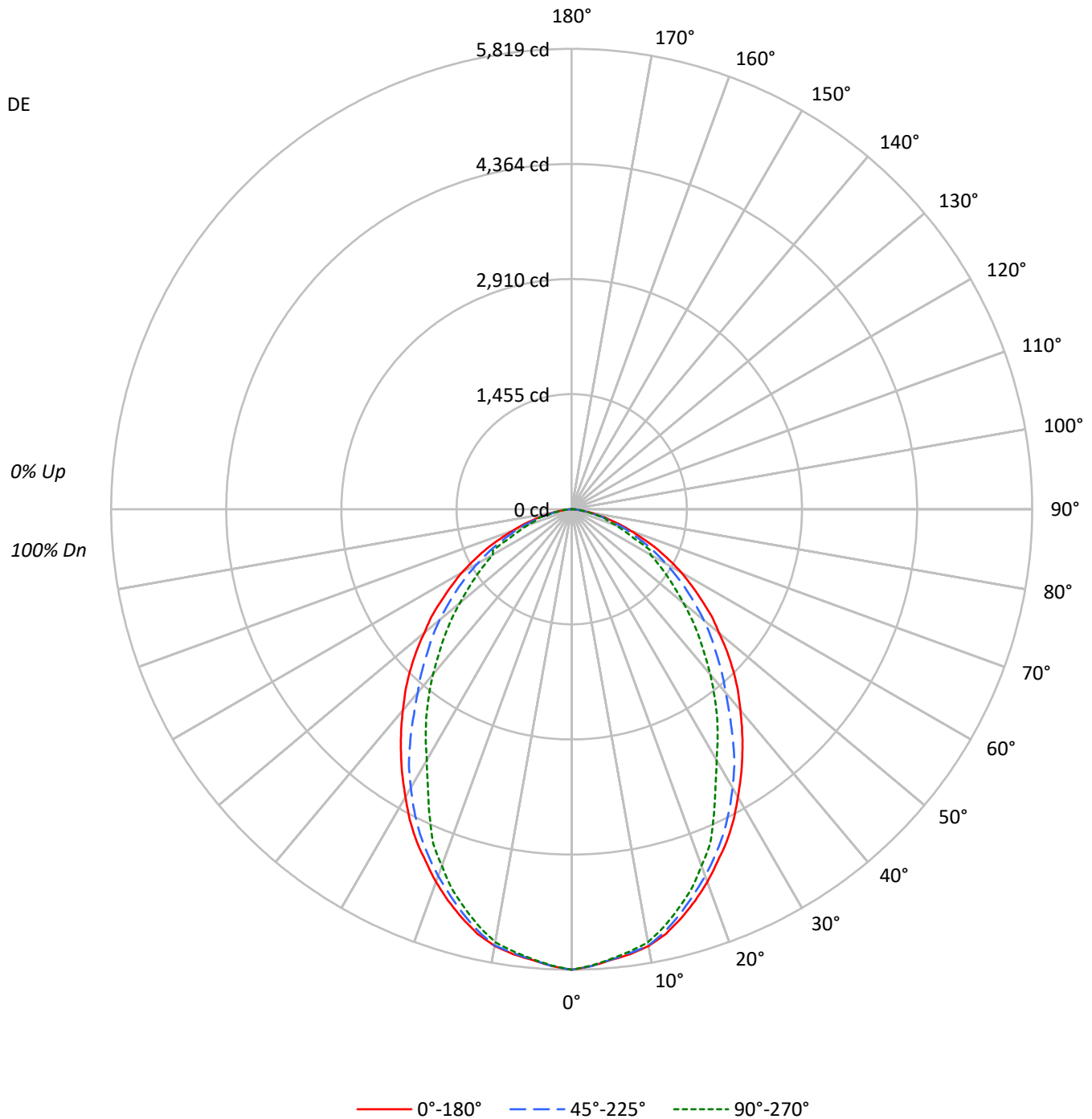
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563585

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P563585

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-81-84-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	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°	7830	7830	7830
5°	7723	7714	7705
10°	7656	7647	7592
15°	7450	7375	7272
20°	7176	7061	6868
25°	6881	6732	6312
30°	6522	6313	5686
35°	6177	5834	5260
40°	5825	5317	4786
45°	5492	4916	4327
50°	5084	4563	3858
55°	4703	4135	3456
60°	4309	3693	3096
65°	3791	3234	2741
70°	3123	2832	2329
75°	2483	2168	2273
80°	1668	1564	1460
85°	1039	1246	1454

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5492 cd/sqm



TEST NUMBER: P563585

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-81-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	541.7	4.7
10°-20°	1486.6	13.0
20°-30°	2058.1	18.0
30°-40°	2194.6	19.2
40°-50°	2002.1	17.5
50°-60°	1568.5	13.7
60°-70°	1022.3	8.9
70°-80°	452.9	4.0
80°-90°	97.2	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°	4086.5	35.8
0°-40°	6281.0	55.0
0°-60°	9851.6	86.2
0°-90°	11424.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11424.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5819	5819	5819	5819	5819	
5°	5718	5712	5712	5705	5705	543
15°	5348	5348	5294	5241	5220	1504
25°	4635	4608	4534	4373	4252	2128
35°	3761	3734	3552	3283	3202	2351
45°	2886	2826	2583	2368	2274	2223
55°	2005	1944	1763	1554	1473	1798
65°	1191	1124	1016	1036	861	1174
75°	478	444	417	397	437	512
85°	67	74	81	88	94	93
90°	0	0	0	0	0	



TEST NUMBER: P563585

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-81-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5819.2	5819.2	5819.2	5819.2	5819.2
2.5°	5778.9	5778.9	5778.9	5772.1	5772.1
5°	5718.3	5711.6	5711.6	5704.9	5704.9
7.5°	5671.2	5664.5	5657.8	5651.0	5637.6
10°	5604.0	5604.0	5597.2	5563.6	5556.9
12.5°	5496.3	5489.6	5462.7	5415.6	5402.1
15°	5348.3	5348.3	5294.5	5240.7	5220.5
17.5°	5186.9	5180.1	5112.9	5059.0	5032.1
20°	5011.9	4998.5	4931.2	4843.8	4796.7
22.5°	4816.8	4816.8	4736.1	4621.7	4574.7
25°	4635.2	4608.3	4534.3	4372.8	4251.7
27.5°	4426.7	4386.3	4305.6	4076.8	3935.6
30°	4197.9	4177.7	4063.4	3767.4	3659.7
32.5°	3982.6	3949.0	3827.9	3518.4	3431.0
35°	3760.6	3733.7	3552.1	3283.0	3202.3
37.5°	3538.6	3505.0	3276.3	3061.0	2960.1
40°	3316.6	3276.3	3027.3	2832.3	2724.6
42.5°	3108.1	3054.3	2812.1	2603.5	2482.4
45°	2886.1	2825.5	2583.3	2368.1	2273.9
47.5°	2664.1	2610.2	2388.2	2166.2	2058.6
50°	2428.6	2381.5	2179.7	1957.7	1843.3
52.5°	2233.5	2159.5	1964.4	1742.4	1648.2
55°	2004.8	1944.2	1762.6	1554.0	1473.3
57.5°	1796.2	1735.7	1567.5	1372.4	1305.1
60°	1601.1	1513.7	1372.4	1204.2	1150.4
62.5°	1385.9	1318.6	1197.5	1056.2	1123.5
65°	1190.8	1123.5	1015.8	1036.0	861.1
67.5°	975.5	941.8	847.7	753.5	726.6
70°	793.8	753.5	719.8	618.9	592.0
72.5°	632.4	592.0	544.9	491.1	470.9
75°	477.6	444.0	417.1	396.9	437.3
77.5°	329.6	316.2	296.0	275.8	269.1
80°	215.3	208.6	201.8	195.1	188.4
82.5°	127.8	127.8	127.8	127.8	127.8
85°	67.3	74.0	80.7	87.5	94.2
87.5°	40.4	40.4	47.1	53.8	60.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)