

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: P564155

Luminaire Tested: FSR-24-4-LD4-4STD-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P564155
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-LD4-4STD-50-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16070.0 lumens
Efficiency: N/A
Efficacy: 120.6 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

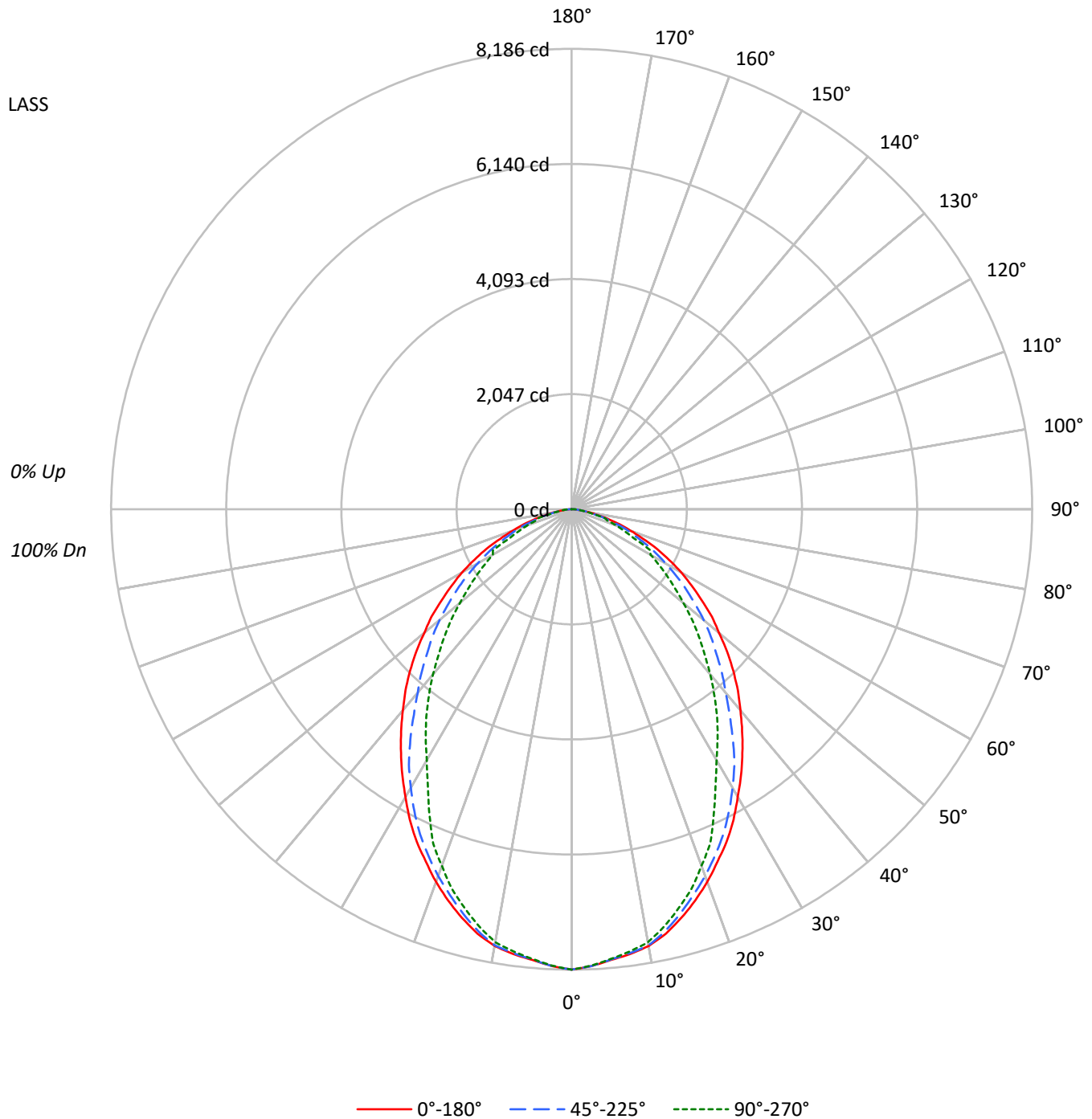
Input Watts (W): 133.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P564155

CATALOG NUMBER: FSR-24-4-LD4-4STD-50-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P564155

CATALOG NUMBER: FSR-24-4-LD4-4STD-50-UNV-80-94-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°	11014	11014	11014
5°	10864	10851	10839
10°	10770	10757	10680
15°	10480	10374	10229
20°	10095	9932	9661
25°	9680	9469	8879
30°	9175	8880	7998
35°	8689	8207	7399
40°	8195	7480	6732
45°	7725	6915	6086
50°	7151	6418	5428
55°	6615	5816	4862
60°	6061	5195	4355
65°	5333	4550	3856
70°	4393	3984	3276
75°	3493	3050	3198
80°	2346	2200	2053
85°	1460	1754	2046

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7725 cd/sqm



TEST NUMBER: P564155

CATALOG NUMBER: FSR-24-4-LD4-4STD-50-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	762.0	4.7
10°-20°	2091.2	13.0
20°-30°	2895.2	18.0
30°-40°	3087.1	19.2
40°-50°	2816.3	17.5
50°-60°	2206.4	13.7
60°-70°	1438.0	8.9
70°-80°	637.1	4.0
80°-90°	136.8	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°	5748.4	35.8
0°-40°	8835.4	55.0
0°-60°	13858.1	86.2
0°-90°	16070.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16070.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8186	8186	8186	8186	8186	
5°	8044	8034	8034	8025	8025	764
15°	7523	7523	7448	7372	7344	2115
25°	6520	6482	6378	6151	5981	2993
35°	5290	5252	4997	4618	4505	3307
45°	4060	3975	3634	3331	3199	3127
55°	2820	2735	2479	2186	2072	2529
65°	1675	1580	1429	1457	1211	1651
75°	672	625	587	558	615	720
85°	95	104	114	123	132	131
90°	0	0	0	0	0	



TEST NUMBER: P564155

CATALOG NUMBER: FSR-24-4-LD4-4STD-50-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8185.8	8185.8	8185.8	8185.8	8185.8
2.5°	8129.1	8129.1	8129.1	8119.6	8119.6
5°	8043.9	8034.4	8034.4	8025.0	8025.0
7.5°	7977.6	7968.2	7958.7	7949.3	7930.3
10°	7883.0	7883.0	7873.6	7826.2	7816.8
12.5°	7731.6	7722.1	7684.3	7618.0	7599.1
15°	7523.4	7523.4	7447.7	7372.0	7343.6
17.5°	7296.3	7286.8	7192.2	7116.5	7078.6
20°	7050.2	7031.3	6936.7	6813.6	6747.4
22.5°	6775.8	6775.8	6662.2	6501.4	6435.1
25°	6520.3	6482.4	6378.3	6151.2	5980.9
27.5°	6226.9	6170.1	6056.6	5734.8	5536.1
30°	5905.2	5876.8	5715.9	5299.5	5148.1
32.5°	5602.3	5555.0	5384.7	4949.4	4826.3
35°	5290.0	5252.2	4996.7	4618.1	4504.6
37.5°	4977.7	4930.4	4608.7	4305.8	4163.9
40°	4665.5	4608.7	4258.5	3984.1	3832.7
42.5°	4372.1	4296.4	3955.7	3662.3	3492.0
45°	4059.8	3974.6	3633.9	3331.1	3198.6
47.5°	3747.5	3671.8	3359.5	3047.2	2895.8
50°	3416.3	3350.0	3066.1	2753.9	2593.0
52.5°	3141.8	3037.8	2763.3	2451.0	2318.5
55°	2820.1	2734.9	2479.4	2186.0	2072.5
57.5°	2526.7	2441.6	2205.0	1930.5	1835.9
60°	2252.3	2129.3	1930.5	1693.9	1618.2
62.5°	1949.5	1854.8	1684.5	1485.8	1580.4
65°	1675.0	1580.4	1429.0	1457.4	1211.3
67.5°	1372.2	1324.9	1192.4	1059.9	1022.0
70°	1116.7	1059.9	1012.6	870.6	832.8
72.5°	889.6	832.8	766.5	690.8	662.4
75°	671.9	624.6	586.7	558.3	615.1
77.5°	463.7	444.8	416.4	388.0	378.5
80°	302.8	293.4	283.9	274.4	265.0
82.5°	179.8	179.8	179.8	179.8	179.8
85°	94.6	104.1	113.6	123.0	132.5
87.5°	56.8	56.8	66.2	75.7	85.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)