

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: P563568

Luminaire Tested: FSR-24-4-LD4-3STD-50-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563568
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-80-84-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10462.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

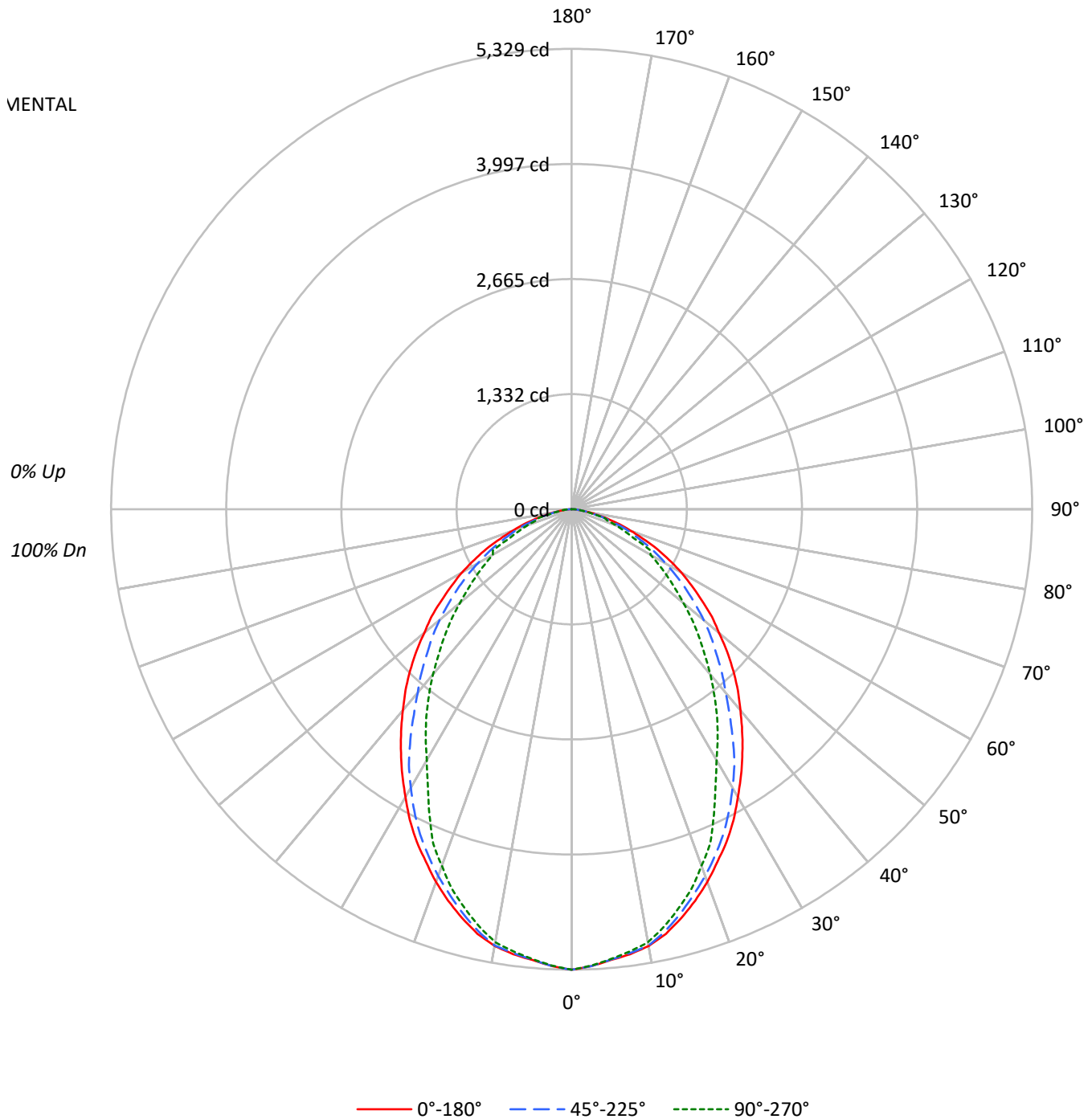
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563568

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-80-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P563568

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-80-84-EDD-90

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°	7170	7170	7170
5°	7073	7065	7056
10°	7012	7003	6953
15°	6823	6754	6660
20°	6572	6466	6290
25°	6302	6165	5781
30°	5973	5781	5207
35°	5657	5343	4817
40°	5335	4869	4383
45°	5029	4502	3962
50°	4656	4178	3534
55°	4307	3787	3165
60°	3946	3382	2835
65°	3472	2962	2511
70°	2860	2593	2133
75°	2274	1986	2082
80°	1527	1432	1337
85°	951	1141	1332

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5029 cd/sqm



TEST NUMBER: P563568

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-80-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	496.1	4.7
10°-20°	1361.4	13.0
20°-30°	1884.8	18.0
30°-40°	2009.8	19.2
40°-50°	1833.5	17.5
50°-60°	1436.4	13.7
60°-70°	936.2	8.9
70°-80°	414.8	4.0
80°-90°	89.1	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°	3742.3	35.8
0°-40°	5752.1	55.0
0°-60°	9022.0	86.2
0°-90°	10462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10462.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5329	5329	5329	5329	5329	
5°	5237	5231	5231	5224	5224	497
15°	4898	4898	4849	4799	4781	1377
25°	4245	4220	4152	4005	3894	1949
35°	3444	3419	3253	3006	2933	2153
45°	2643	2588	2366	2169	2082	2036
55°	1836	1780	1614	1423	1349	1647
65°	1090	1029	930	949	789	1075
75°	437	407	382	364	400	469
85°	62	68	74	80	86	85
90°	0	0	0	0	0	



TEST NUMBER: P563568

CATALOG NUMBER: FSR-24-4-LD4-3STD-50-UNV-80-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5329.2	5329.2	5329.2	5329.2	5329.2
2.5°	5292.2	5292.2	5292.2	5286.1	5286.1
5°	5236.8	5230.6	5230.6	5224.5	5224.5
7.5°	5193.7	5187.5	5181.3	5175.2	5162.9
10°	5132.1	5132.1	5125.9	5095.1	5088.9
12.5°	5033.5	5027.3	5002.7	4959.5	4947.2
15°	4897.9	4897.9	4848.7	4799.4	4780.9
17.5°	4750.1	4743.9	4682.3	4633.0	4608.4
20°	4589.9	4577.6	4516.0	4435.9	4392.7
22.5°	4411.2	4411.2	4337.3	4232.6	4189.4
25°	4244.9	4220.2	4152.5	4004.6	3893.7
27.5°	4053.9	4016.9	3943.0	3733.5	3604.1
30°	3844.4	3825.9	3721.2	3450.1	3351.5
32.5°	3647.3	3616.5	3505.6	3222.2	3142.1
35°	3444.0	3419.3	3253.0	3006.5	2932.6
37.5°	3240.6	3209.8	3000.4	2803.2	2710.8
40°	3037.3	3000.4	2772.4	2593.8	2495.2
42.5°	2846.3	2797.1	2575.3	2384.3	2273.4
45°	2643.0	2587.6	2365.8	2168.6	2082.4
47.5°	2439.7	2390.4	2187.1	1983.8	1885.2
50°	2224.1	2181.0	1996.1	1792.8	1688.1
52.5°	2045.4	1977.7	1799.0	1595.7	1509.4
55°	1836.0	1780.5	1614.2	1423.2	1349.2
57.5°	1645.0	1589.5	1435.5	1256.8	1195.2
60°	1466.3	1386.2	1256.8	1102.8	1053.5
62.5°	1269.2	1207.5	1096.6	967.3	1028.9
65°	1090.5	1028.9	930.3	948.8	788.6
67.5°	893.3	862.5	776.3	690.0	665.4
70°	727.0	690.0	659.2	566.8	542.2
72.5°	579.1	542.2	499.0	449.7	431.3
75°	437.4	406.6	382.0	363.5	400.5
77.5°	301.9	289.6	271.1	252.6	246.4
80°	197.1	191.0	184.8	178.7	172.5
82.5°	117.1	117.1	117.1	117.1	117.1
85°	61.6	67.8	73.9	80.1	86.3
87.5°	37.0	37.0	43.1	49.3	55.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)