

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: P563095

Luminaire Tested: FSR-24-4-LD4-3HI-35-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563095
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-LD4-3HI-35-UNV-82-87-EDD
Description: 2X4 FSR TROFFER WITH .187 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: 12522.0 lumens
Efficiency: N/A
Efficacy: 96.6 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

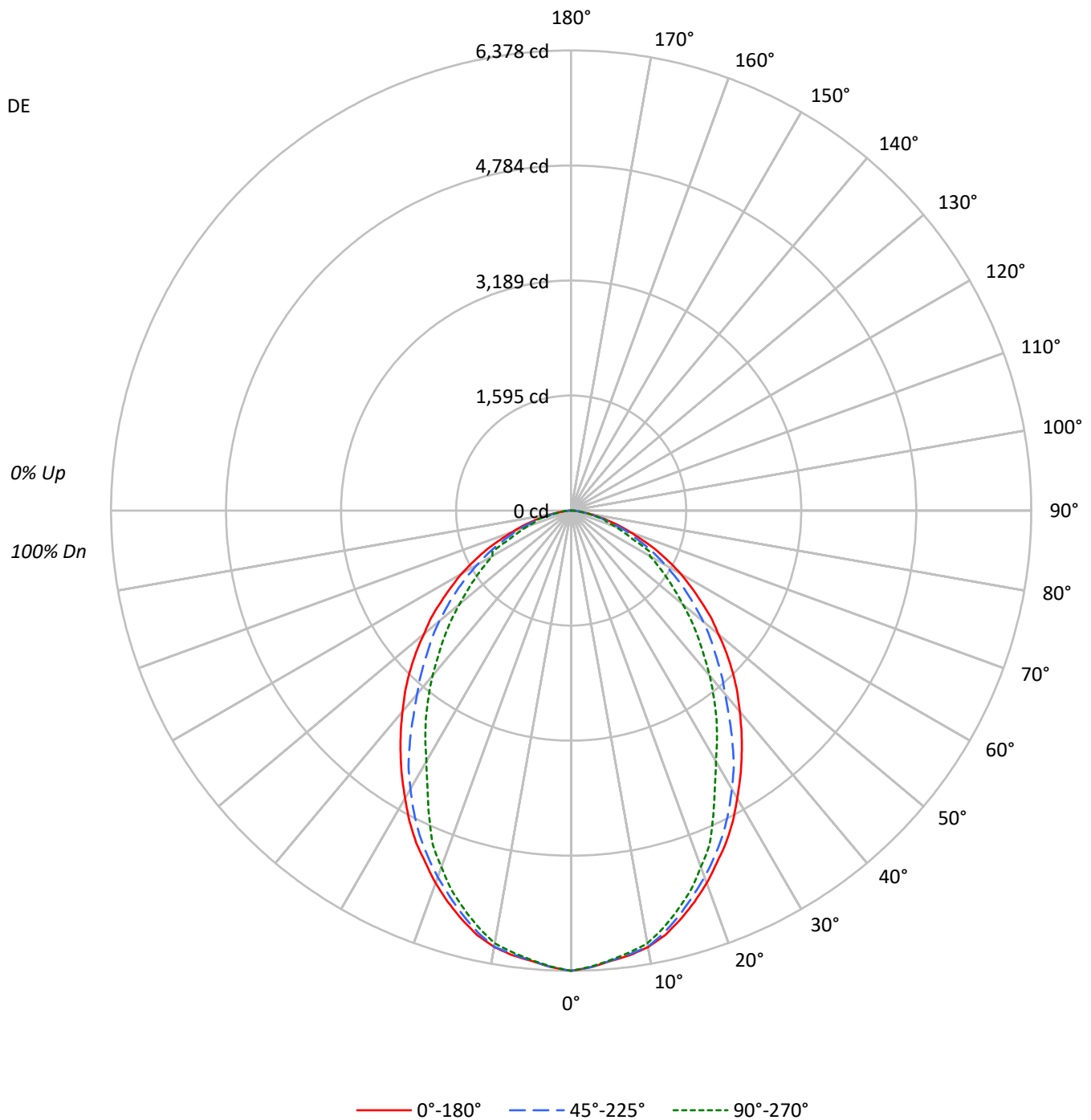
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563095

CATALOG NUMBER: FSR-24-4-LD4-3HI-35-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P563095

CATALOG NUMBER: FSR-24-4-LD4-3HI-35-UNV-82-87-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				
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°	8582	8582	8582
5°	8466	8456	8446
10°	8392	8382	8322
15°	8166	8084	7971
20°	7866	7739	7528
25°	7543	7379	6919
30°	7149	6920	6232
35°	6771	6395	5765
40°	6385	5828	5246
45°	6020	5388	4743
50°	5572	5001	4229
55°	5155	4532	3788
60°	4723	4048	3393
65°	4155	3545	3005
70°	3423	3104	2553
75°	2722	2377	2492
80°	1829	1714	1600
85°	1138	1366	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6020 cd/sqm



TEST NUMBER: P563095

CATALOG NUMBER: FSR-24-4-LD4-3HI-35-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	593.8	4.7
10°-20°	1629.5	13.0
20°-30°	2256.0	18.0
30°-40°	2405.5	19.2
40°-50°	2194.5	17.5
50°-60°	1719.2	13.7
60°-70°	1120.5	8.9
70°-80°	496.4	4.0
80°-90°	106.6	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°	4479.2	35.8
0°-40°	6884.7	55.0
0°-60°	10798.5	86.2
0°-90°	12522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6378	6378	6378	6378	6378	
5°	6268	6261	6261	6253	6253	595
15°	5862	5862	5803	5744	5722	1648
25°	5081	5051	4970	4793	4660	2333
35°	4122	4093	3894	3598	3510	2577
45°	3164	3097	2832	2596	2492	2437
55°	2198	2131	1932	1703	1615	1971
65°	1305	1232	1114	1136	944	1286
75°	524	487	457	435	479	561
85°	74	81	88	96	103	102
90°	0	0	0	0	0	



TEST NUMBER: P563095

CATALOG NUMBER: FSR-24-4-LD4-3HI-35-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6378.5	6378.5	6378.5	6378.5	6378.5
2.5°	6334.3	6334.3	6334.3	6326.9	6326.9
5°	6267.9	6260.6	6260.6	6253.2	6253.2
7.5°	6216.3	6208.9	6201.6	6194.2	6179.4
10°	6142.6	6142.6	6135.2	6098.3	6091.0
12.5°	6024.6	6017.2	5987.7	5936.1	5921.3
15°	5862.4	5862.4	5803.4	5744.4	5722.3
17.5°	5685.4	5678.0	5604.3	5545.3	5515.8
20°	5493.7	5478.9	5405.2	5309.3	5257.7
22.5°	5279.8	5279.8	5191.3	5066.0	5014.3
25°	5080.7	5051.2	4970.1	4793.1	4660.4
27.5°	4852.1	4807.9	4719.4	4468.7	4313.8
30°	4601.4	4579.3	4453.9	4129.5	4011.5
32.5°	4365.4	4328.6	4195.8	3856.6	3760.8
35°	4122.1	4092.6	3893.5	3598.5	3510.0
37.5°	3878.7	3841.9	3591.2	3355.2	3244.6
40°	3635.4	3591.2	3318.3	3104.5	2986.5
42.5°	3406.8	3347.8	3082.3	2853.8	2721.0
45°	3163.5	3097.1	2831.6	2595.7	2492.4
47.5°	2920.1	2861.1	2617.8	2374.4	2256.5
50°	2662.0	2610.4	2389.2	2145.8	2020.5
52.5°	2448.2	2367.1	2153.2	1909.9	1806.6
55°	2197.5	2131.1	1932.0	1703.4	1614.9
57.5°	1968.9	1902.5	1718.1	1504.3	1430.6
60°	1755.0	1659.2	1504.3	1320.0	1261.0
62.5°	1519.1	1445.3	1312.6	1157.7	1231.5
65°	1305.2	1231.5	1113.5	1135.6	943.9
67.5°	1069.2	1032.4	929.1	825.9	796.4
70°	870.1	825.9	789.0	678.4	648.9
72.5°	693.2	648.9	597.3	538.3	516.2
75°	523.6	486.7	457.2	435.1	479.3
77.5°	361.3	346.6	324.5	302.3	295.0
80°	236.0	228.6	221.2	213.8	206.5
82.5°	140.1	140.1	140.1	140.1	140.1
85°	73.7	81.1	88.5	95.9	103.2
87.5°	44.2	44.2	51.6	59.0	66.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)