

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: P562492

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562492
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-LD4-2HI-35-UNV-80-96-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7940.0 lumens
Efficiency: N/A
Efficacy: 91.9 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

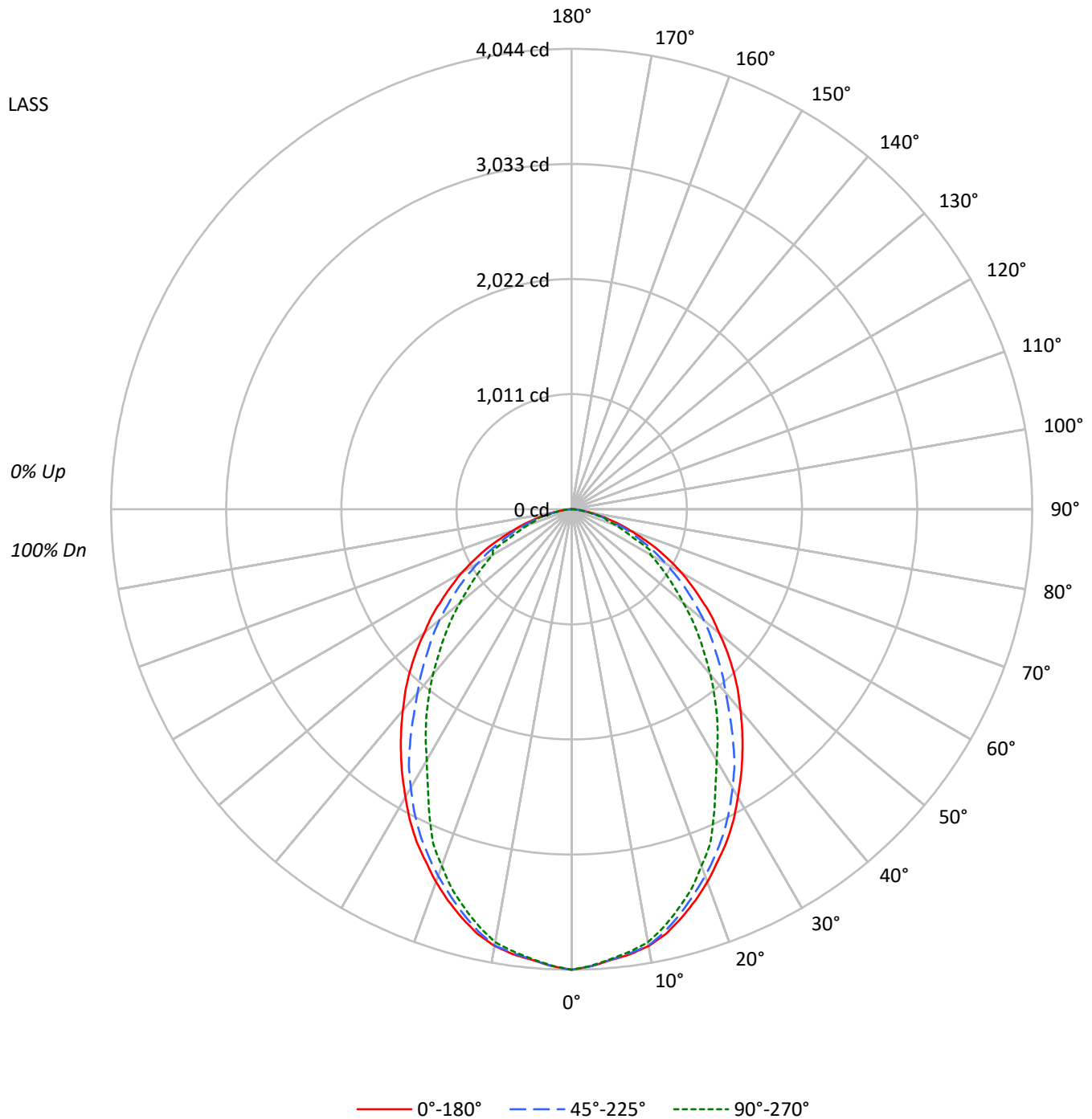
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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°	5442	5442	5442
5°	5368	5362	5355
10°	5321	5315	5277
15°	5178	5126	5054
20°	4988	4907	4773
25°	4783	4679	4387
30°	4533	4388	3952
35°	4293	4055	3656
40°	4049	3696	3326
45°	3817	3416	3007
50°	3533	3171	2682
55°	3269	2874	2402
60°	2995	2567	2152
65°	2635	2248	1905
70°	2170	1968	1619
75°	1726	1507	1580
80°	1159	1087	1014
85°	722	866	1011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.5	4.7
10°-20°	1033.2	13.0
20°-30°	1430.5	18.0
30°-40°	1525.3	19.2
40°-50°	1391.5	17.5
50°-60°	1090.1	13.7
60°-70°	710.5	8.9
70°-80°	314.8	4.0
80°-90°	67.6	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°	2840.2	35.8
0°-40°	4365.5	55.0
0°-60°	6847.1	86.2
0°-90°	7940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4044	4044	4044	4044	4044	
5°	3974	3970	3970	3965	3965	377
15°	3717	3717	3680	3642	3628	1045
25°	3222	3203	3152	3039	2955	1479
35°	2614	2595	2469	2282	2226	1634
45°	2006	1964	1796	1646	1580	1545
55°	1393	1351	1225	1080	1024	1250
65°	828	781	706	720	598	816
75°	332	309	290	276	304	356
85°	47	51	56	61	66	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4044.5	4044.5	4044.5	4044.5	4044.5
2.5°	4016.5	4016.5	4016.5	4011.8	4011.8
5°	3974.4	3969.7	3969.7	3965.0	3965.0
7.5°	3941.7	3937.0	3932.3	3927.6	3918.3
10°	3894.9	3894.9	3890.2	3866.9	3862.2
12.5°	3820.1	3815.4	3796.7	3764.0	3754.6
15°	3717.2	3717.2	3679.8	3642.4	3628.4
17.5°	3605.0	3600.3	3553.6	3516.2	3497.5
20°	3483.4	3474.1	3427.3	3366.5	3333.8
22.5°	3347.8	3347.8	3291.7	3212.2	3179.5
25°	3221.6	3202.9	3151.5	3039.2	2955.1
27.5°	3076.6	3048.6	2992.5	2833.5	2735.3
30°	2917.7	2903.6	2824.2	2618.4	2543.6
32.5°	2768.0	2744.7	2660.5	2445.4	2384.6
35°	2613.7	2595.0	2468.8	2281.8	2225.7
37.5°	2459.4	2436.1	2277.1	2127.5	2057.3
40°	2305.1	2277.1	2104.1	1968.5	1893.7
42.5°	2160.2	2122.8	1954.5	1809.5	1725.4
45°	2005.9	1963.8	1795.5	1645.9	1580.4
47.5°	1851.6	1814.2	1659.9	1505.6	1430.8
50°	1687.9	1655.2	1514.9	1360.6	1281.2
52.5°	1552.4	1500.9	1365.3	1211.0	1145.6
55°	1393.4	1351.3	1225.0	1080.1	1024.0
57.5°	1248.4	1206.3	1089.5	953.9	907.1
60°	1112.8	1052.0	953.9	837.0	799.6
62.5°	963.2	916.4	832.3	734.1	780.9
65°	827.6	780.9	706.0	720.1	598.5
67.5°	678.0	654.6	589.1	523.7	505.0
70°	551.7	523.7	500.3	430.2	411.5
72.5°	439.5	411.5	378.7	341.3	327.3
75°	332.0	308.6	289.9	275.9	303.9
77.5°	229.1	219.8	205.7	191.7	187.0
80°	149.6	144.9	140.3	135.6	130.9
82.5°	88.8	88.8	88.8	88.8	88.8
85°	46.8	51.4	56.1	60.8	65.5
87.5°	28.1	28.1	32.7	37.4	42.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)