

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: P562528

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562528
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-93-84-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8026.0 lumens
Efficiency: N/A
Efficacy: 92.9 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

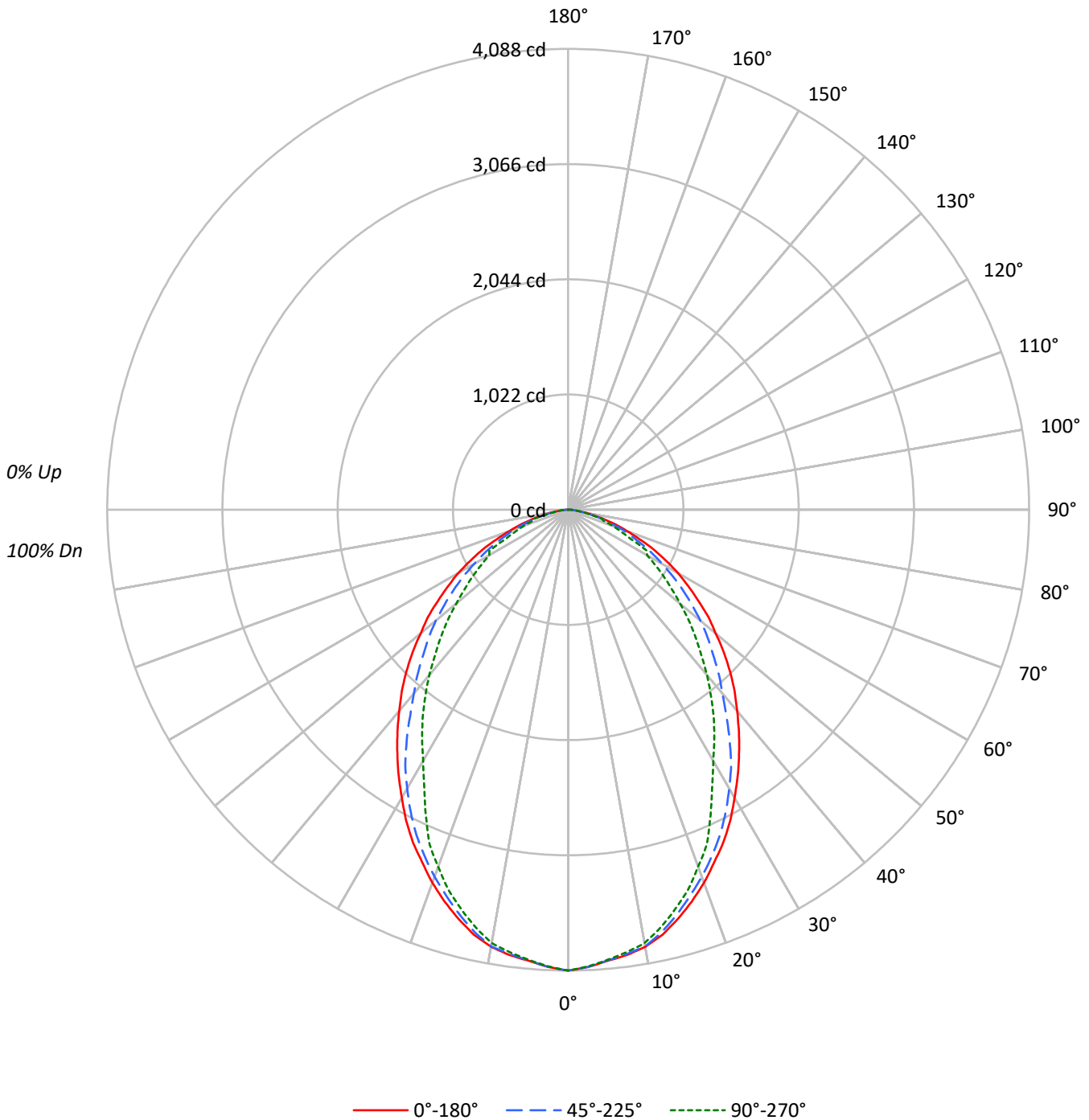
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5501	5501	5501
5°	5426	5420	5413
10°	5379	5373	5334
15°	5234	5181	5109
20°	5042	4961	4825
25°	4835	4729	4435
30°	4582	4435	3995
35°	4340	4099	3695
40°	4093	3736	3362
45°	3858	3453	3040
50°	3571	3206	2711
55°	3304	2905	2428
60°	3027	2595	2175
65°	2663	2272	1926
70°	2194	1989	1636
75°	1745	1523	1597
80°	1172	1099	1025
85°	730	875	1022

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3858 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.6	4.7
10°-20°	1044.4	13.0
20°-30°	1446.0	18.0
30°-40°	1541.8	19.2
40°-50°	1406.6	17.5
50°-60°	1101.9	13.7
60°-70°	718.2	8.9
70°-80°	318.2	4.0
80°-90°	68.3	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°	2871.0	35.8
0°-40°	4412.8	55.0
0°-60°	6921.3	86.2
0°-90°	8026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8026.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4088	4088	4088	4088	4088	
5°	4017	4013	4013	4008	4008	381
15°	3758	3758	3720	3682	3668	1056
25°	3256	3238	3186	3072	2987	1495
35°	2642	2623	2496	2306	2250	1652
45°	2028	1985	1815	1664	1598	1562
55°	1408	1366	1238	1092	1035	1263
65°	837	789	714	728	605	824
75°	336	312	293	279	307	360
85°	47	52	57	61	66	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4088.3	4088.3	4088.3	4088.3	4088.3
2.5°	4060.0	4060.0	4060.0	4055.3	4055.3
5°	4017.4	4012.7	4012.7	4008.0	4008.0
7.5°	3984.4	3979.6	3974.9	3970.2	3960.7
10°	3937.1	3937.1	3932.4	3908.7	3904.0
12.5°	3861.5	3856.7	3837.8	3804.8	3795.3
15°	3757.5	3757.5	3719.7	3681.9	3667.7
17.5°	3644.1	3639.3	3592.1	3554.3	3535.3
20°	3521.2	3511.7	3464.5	3403.0	3369.9
22.5°	3384.1	3384.1	3327.4	3247.0	3214.0
25°	3256.5	3237.6	3185.6	3072.2	2987.1
27.5°	3110.0	3081.6	3024.9	2864.2	2764.9
30°	2949.3	2935.1	2854.7	2646.8	2571.2
32.5°	2798.0	2774.4	2689.3	2471.9	2410.5
35°	2642.1	2623.2	2495.5	2306.5	2249.8
37.5°	2486.1	2462.5	2301.8	2150.5	2079.6
40°	2330.1	2301.8	2126.9	1989.8	1914.2
42.5°	2183.6	2145.8	1975.6	1829.1	1744.0
45°	2027.6	1985.1	1814.9	1663.7	1597.5
47.5°	1871.7	1833.8	1677.9	1521.9	1446.3
50°	1706.2	1673.1	1531.4	1375.4	1295.0
52.5°	1569.2	1517.2	1380.1	1224.1	1158.0
55°	1408.5	1365.9	1238.3	1091.8	1035.1
57.5°	1261.9	1219.4	1101.3	964.2	916.9
60°	1124.9	1063.4	964.2	846.0	808.2
62.5°	973.6	926.4	841.3	742.0	789.3
65°	836.6	789.3	713.7	727.9	605.0
67.5°	685.3	661.7	595.5	529.4	510.5
70°	557.7	529.4	505.7	434.8	415.9
72.5°	444.3	415.9	382.8	345.0	330.8
75°	335.6	311.9	293.0	278.9	307.2
77.5°	231.6	222.1	208.0	193.8	189.1
80°	151.2	146.5	141.8	137.1	132.3
82.5°	89.8	89.8	89.8	89.8	89.8
85°	47.3	52.0	56.7	61.4	66.2
87.5°	28.4	28.4	33.1	37.8	42.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)