

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: P563769

Luminaire Tested: FSR-24-4-LD4-4HI-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563769
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-LD4-4HI-50-UNV-80-88-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16605.0 lumens
Efficiency: N/A
Efficacy: 96.1 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

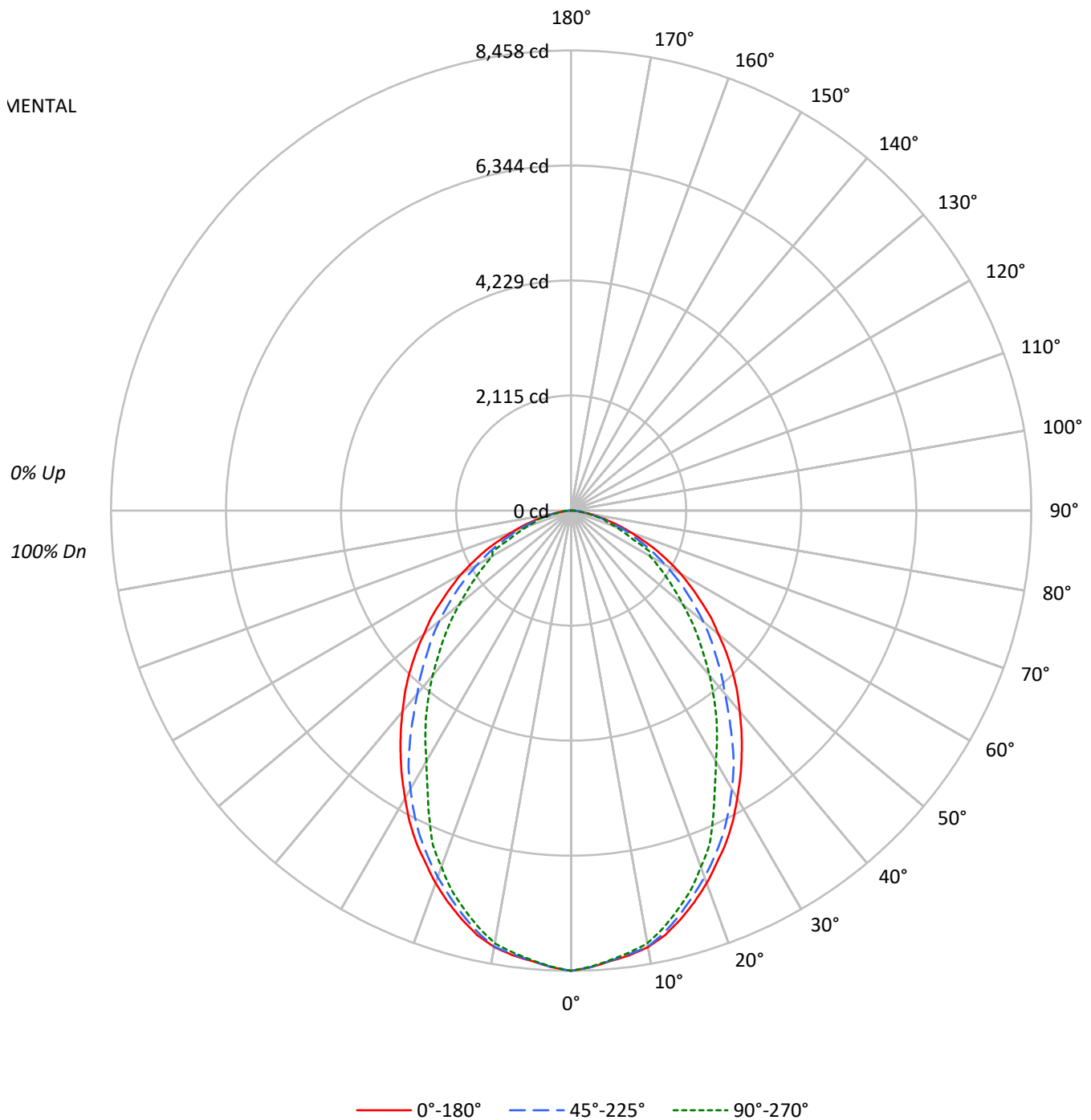
Input Watts (W): 172.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	11381	11381	11381
5°	11226	11213	11200
10°	11129	11115	11035
15°	10829	10720	10570
20°	10431	10263	9983
25°	10002	9784	9175
30°	9480	9176	8265
35°	8978	8480	7645
40°	8467	7729	6956
45°	7982	7145	6289
50°	7389	6632	5608
55°	6836	6010	5024
60°	6263	5368	4500
65°	5510	4701	3985
70°	4539	4116	3385
75°	3609	3152	3304
80°	2424	2273	2122
85°	1510	1811	2113

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7982 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	787.4	4.7
10°-20°	2160.8	13.0
20°-30°	2991.5	18.0
30°-40°	3189.9	19.2
40°-50°	2910.1	17.5
50°-60°	2279.8	13.7
60°-70°	1485.9	8.9
70°-80°	658.3	4.0
80°-90°	141.3	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°	5939.7	35.8
0°-40°	9129.6	55.0
0°-60°	14319.5	86.2
0°-90°	16605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16605.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8458	8458	8458	8458	8458	
5°	8312	8302	8302	8292	8292	789
15°	7774	7774	7696	7617	7588	2185
25°	6737	6698	6591	6356	6180	3093
35°	5466	5427	5163	4772	4654	3417
45°	4195	4107	3755	3442	3305	3231
55°	2914	2826	2562	2259	2142	2614
65°	1731	1633	1476	1506	1252	1706
75°	694	645	606	577	636	744
85°	98	108	117	127	137	136
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8458.4	8458.4	8458.4	8458.4	8458.4
2.5°	8399.7	8399.7	8399.7	8389.9	8389.9
5°	8311.7	8301.9	8301.9	8292.1	8292.1
7.5°	8243.2	8233.5	8223.7	8213.9	8194.3
10°	8145.5	8145.5	8135.7	8086.8	8077.0
12.5°	7989.0	7979.2	7940.1	7871.7	7852.1
15°	7773.9	7773.9	7695.6	7617.4	7588.1
17.5°	7539.2	7529.4	7431.6	7353.4	7314.3
20°	7285.0	7265.4	7167.6	7040.5	6972.0
22.5°	7001.4	7001.4	6884.0	6717.8	6649.4
25°	6737.4	6698.2	6590.7	6356.0	6180.0
27.5°	6434.2	6375.6	6258.2	5925.7	5720.4
30°	6101.8	6072.4	5906.2	5475.9	5319.5
32.5°	5788.8	5740.0	5563.9	5114.1	4987.0
35°	5466.2	5427.0	5163.0	4771.9	4654.5
37.5°	5143.5	5094.6	4762.1	4449.2	4302.5
40°	4820.8	4762.1	4400.3	4116.7	3960.3
42.5°	4517.6	4439.4	4087.4	3784.3	3608.3
45°	4195.0	4107.0	3754.9	3442.0	3305.1
47.5°	3872.3	3794.0	3471.4	3148.7	2992.2
50°	3530.0	3461.6	3168.2	2845.5	2679.3
52.5°	3246.4	3138.9	2855.3	2532.6	2395.7
55°	2914.0	2826.0	2562.0	2258.8	2141.5
57.5°	2610.8	2522.8	2278.4	1994.8	1897.0
60°	2327.3	2200.2	1994.8	1750.3	1672.1
62.5°	2014.4	1916.6	1740.6	1535.2	1633.0
65°	1730.8	1633.0	1476.5	1505.9	1251.6
67.5°	1417.9	1369.0	1232.1	1095.2	1056.1
70°	1153.9	1095.2	1046.3	899.6	860.5
72.5°	919.2	860.5	792.1	713.8	684.5
75°	694.3	645.4	606.3	576.9	635.6
77.5°	479.1	459.6	430.3	400.9	391.1
80°	312.9	303.1	293.4	283.6	273.8
82.5°	185.8	185.8	185.8	185.8	185.8
85°	97.8	107.6	117.3	127.1	136.9
87.5°	58.7	58.7	68.4	78.2	88.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)