

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: P562957

Luminaire Tested: FSR-24-4-LD4-2STD-40-UNV-81-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562957
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-LD4-2STD-40-UNV-81-96-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7423.0 lumens
Efficiency: N/A
Efficacy: 111.5 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

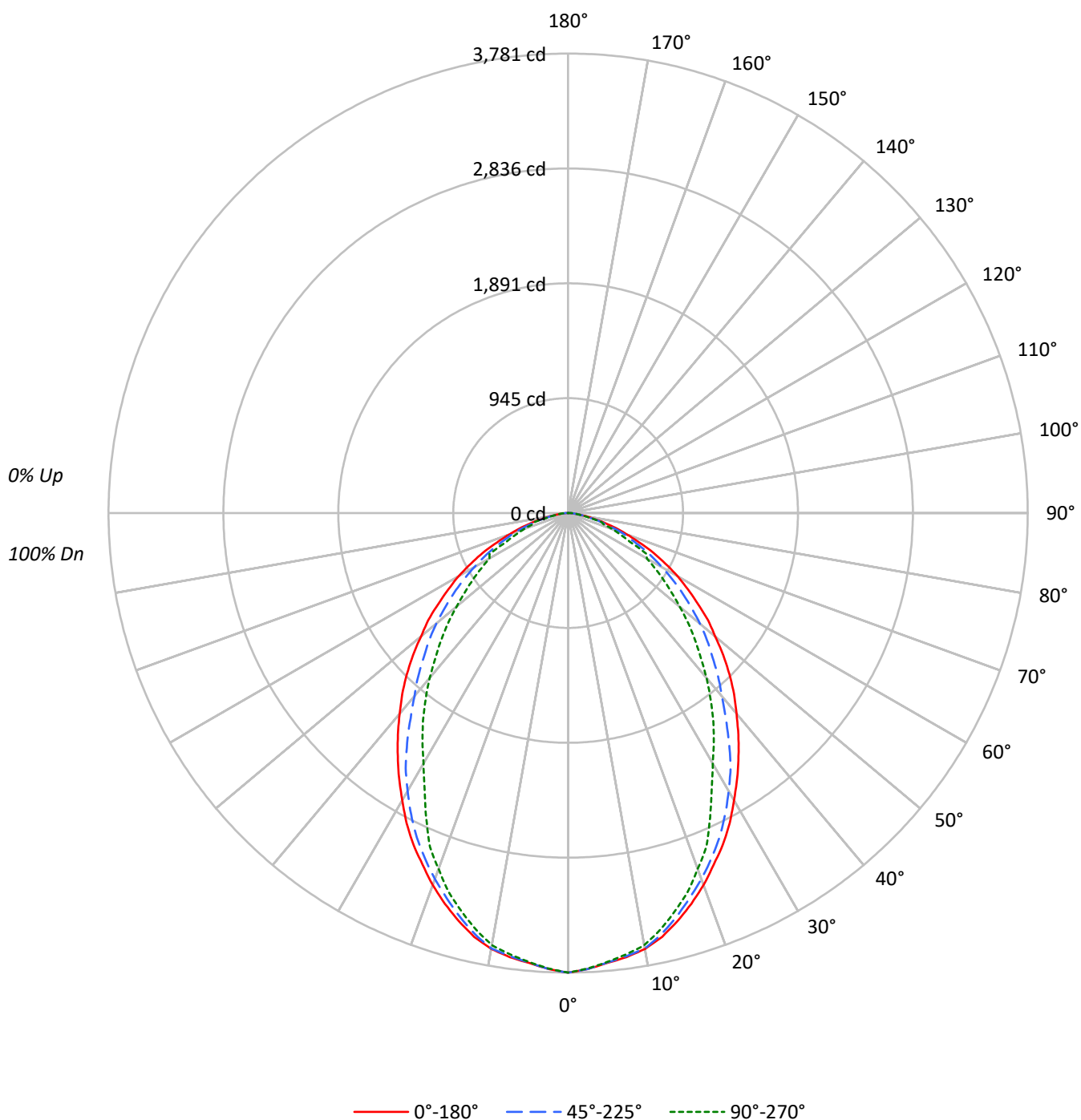
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	5088	5088	5088
5°	5018	5012	5007
10°	4975	4969	4933
15°	4841	4792	4725
20°	4663	4588	4463
25°	4471	4374	4101
30°	4238	4102	3695
35°	4014	3791	3418
40°	3785	3455	3110
45°	3568	3194	2811
50°	3303	2965	2507
55°	3056	2687	2246
60°	2800	2400	2012
65°	2463	2102	1781
70°	2029	1840	1513
75°	1614	1409	1477
80°	1084	1016	948
85°	675	810	945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3568 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.0	4.7
10°-20°	966.0	13.0
20°-30°	1337.3	18.0
30°-40°	1426.0	19.2
40°-50°	1300.9	17.5
50°-60°	1019.1	13.7
60°-70°	664.2	8.9
70°-80°	294.3	4.0
80°-90°	63.2	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°	2655.3	35.8
0°-40°	4081.2	55.0
0°-60°	6401.3	86.2
0°-90°	7423.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7423.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3781	3781	3781	3781	3781	
5°	3716	3711	3711	3707	3707	353
15°	3475	3475	3440	3405	3392	977
25°	3012	2994	2946	2841	2763	1383
35°	2444	2426	2308	2133	2081	1528
45°	1875	1836	1679	1539	1478	1445
55°	1303	1263	1145	1010	957	1168
65°	774	730	660	673	560	762
75°	310	288	271	258	284	333
85°	44	48	52	57	61	61
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3781.2	3781.2	3781.2	3781.2	3781.2
2.5°	3754.9	3754.9	3754.9	3750.6	3750.6
5°	3715.6	3711.2	3711.2	3706.9	3706.9
7.5°	3685.0	3680.6	3676.3	3671.9	3663.2
10°	3641.3	3641.3	3636.9	3615.1	3610.7
12.5°	3571.4	3567.0	3549.5	3518.9	3510.2
15°	3475.2	3475.2	3440.2	3405.2	3392.1
17.5°	3370.3	3365.9	3322.2	3287.2	3269.7
20°	3256.6	3247.9	3204.2	3147.3	3116.7
22.5°	3129.9	3129.9	3077.4	3003.1	2972.5
25°	3011.8	2994.3	2946.3	2841.3	2762.7
27.5°	2876.3	2850.1	2797.6	2649.0	2557.2
30°	2727.7	2714.6	2640.3	2447.9	2378.0
32.5°	2587.8	2566.0	2487.3	2286.2	2229.4
35°	2443.6	2426.1	2308.0	2133.2	2080.7
37.5°	2299.3	2277.4	2128.8	1988.9	1923.4
40°	2155.1	2128.8	1967.1	1840.3	1770.4
42.5°	2019.5	1984.6	1827.2	1691.7	1613.0
45°	1875.3	1835.9	1678.6	1538.7	1477.5
47.5°	1731.0	1696.1	1551.8	1407.6	1337.6
50°	1578.0	1547.4	1416.3	1272.0	1197.7
52.5°	1451.3	1403.2	1276.4	1132.2	1071.0
55°	1302.6	1263.3	1145.3	1009.8	957.3
57.5°	1167.1	1127.8	1018.5	891.7	848.0
60°	1040.4	983.5	891.7	782.5	747.5
62.5°	900.5	856.8	778.1	686.3	730.0
65°	773.7	730.0	660.1	673.2	559.5
67.5°	633.8	612.0	550.8	489.6	472.1
70°	515.8	489.6	467.7	402.2	384.7
72.5°	410.9	384.7	354.1	319.1	306.0
75°	310.4	288.5	271.0	257.9	284.1
77.5°	214.2	205.5	192.3	179.2	174.9
80°	139.9	135.5	131.1	126.8	122.4
82.5°	83.1	83.1	83.1	83.1	83.1
85°	43.7	48.1	52.5	56.8	61.2
87.5°	26.2	26.2	30.6	35.0	39.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)