

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: P563513

Luminaire Tested: FSR-24-4-LD4-3STD-40-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563513
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-LD4-3STD-40-UNV-80-88-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9984.0 lumens
Efficiency: N/A
Efficacy: 99.9 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

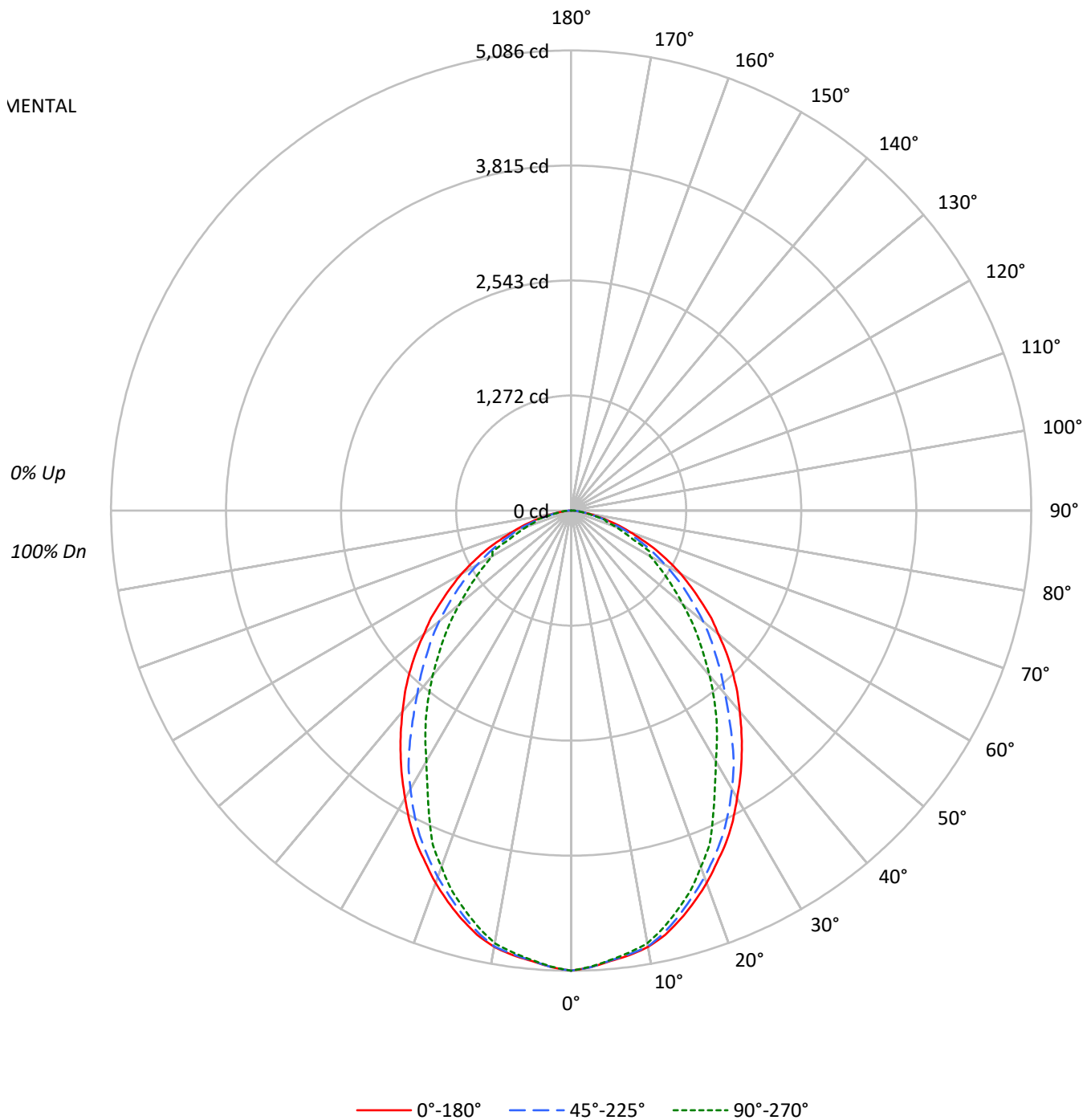
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6843	6843	6843
5°	6750	6742	6734
10°	6691	6683	6635
15°	6511	6445	6355
20°	6272	6171	6002
25°	6014	5883	5516
30°	5700	5517	4969
35°	5398	5099	4597
40°	5091	4647	4182
45°	4799	4296	3781
50°	4443	3987	3372
55°	4110	3613	3020
60°	3765	3228	2706
65°	3313	2826	2396
70°	2729	2475	2035
75°	2170	1895	1987
80°	1457	1367	1275
85°	908	1090	1271

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4799 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.4	4.7
10°-20°	1299.2	13.0
20°-30°	1798.7	18.0
30°-40°	1917.9	19.2
40°-50°	1749.7	17.5
50°-60°	1370.8	13.7
60°-70°	893.4	8.9
70°-80°	395.8	4.0
80°-90°	85.0	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°	3571.4	35.8
0°-40°	5489.3	55.0
0°-60°	8609.8	86.2
0°-90°	9984.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9984.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5086	5086	5086	5086	5086	
5°	4998	4992	4992	4986	4986	474
15°	4674	4674	4627	4580	4562	1314
25°	4051	4027	3963	3822	3716	1860
35°	3287	3263	3104	2869	2799	2055
45°	2522	2469	2258	2070	1987	1943
55°	1752	1699	1540	1358	1288	1571
65°	1041	982	888	905	753	1026
75°	417	388	364	347	382	447
85°	59	65	71	76	82	82
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5085.7	5085.7	5085.7	5085.7	5085.7
2.5°	5050.4	5050.4	5050.4	5044.6	5044.6
5°	4997.5	4991.6	4991.6	4985.8	4985.8
7.5°	4956.4	4950.5	4944.6	4938.7	4927.0
10°	4897.6	4897.6	4891.7	4862.3	4856.4
12.5°	4803.5	4797.6	4774.1	4732.9	4721.2
15°	4674.2	4674.2	4627.1	4580.1	4562.4
17.5°	4533.0	4527.2	4468.4	4421.3	4397.8
20°	4380.2	4368.4	4309.6	4233.2	4192.0
22.5°	4209.7	4209.7	4139.1	4039.2	3998.0
25°	4050.9	4027.4	3962.7	3821.6	3715.8
27.5°	3868.7	3833.4	3762.8	3562.9	3439.5
30°	3668.8	3651.1	3551.2	3292.5	3198.4
32.5°	3480.6	3451.2	3345.4	3074.9	2998.5
35°	3286.6	3263.1	3104.3	2869.2	2798.6
37.5°	3092.6	3063.2	2863.3	2675.1	2587.0
40°	2898.6	2863.3	2645.7	2475.2	2381.2
42.5°	2716.3	2669.3	2457.6	2275.3	2169.5
45°	2522.3	2469.4	2257.7	2069.6	1987.3
47.5°	2328.3	2281.2	2087.2	1893.2	1799.1
50°	2122.5	2081.3	1904.9	1710.9	1611.0
52.5°	1952.0	1887.3	1716.8	1522.8	1440.5
55°	1752.1	1699.2	1540.4	1358.2	1287.6
57.5°	1569.8	1516.9	1369.9	1199.4	1140.6
60°	1399.3	1322.9	1199.4	1052.4	1005.4
62.5°	1211.2	1152.4	1046.5	923.1	981.9
65°	1040.7	981.9	887.8	905.4	752.6
67.5°	852.5	823.1	740.8	658.5	635.0
70°	693.8	658.5	629.1	540.9	517.4
72.5°	552.7	517.4	476.2	429.2	411.6
75°	417.4	388.0	364.5	346.9	382.2
77.5°	288.1	276.3	258.7	241.1	235.2
80°	188.1	182.3	176.4	170.5	164.6
82.5°	111.7	111.7	111.7	111.7	111.7
85°	58.8	64.7	70.6	76.4	82.3
87.5°	35.3	35.3	41.2	47.0	52.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)