

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: P563251

Luminaire Tested: FSR-24-4-LD4-3LO-35-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563251
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-LD4-3LO-35-UNV-80-85-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8569.0 lumens
Efficiency: N/A
Efficacy: 122.1 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

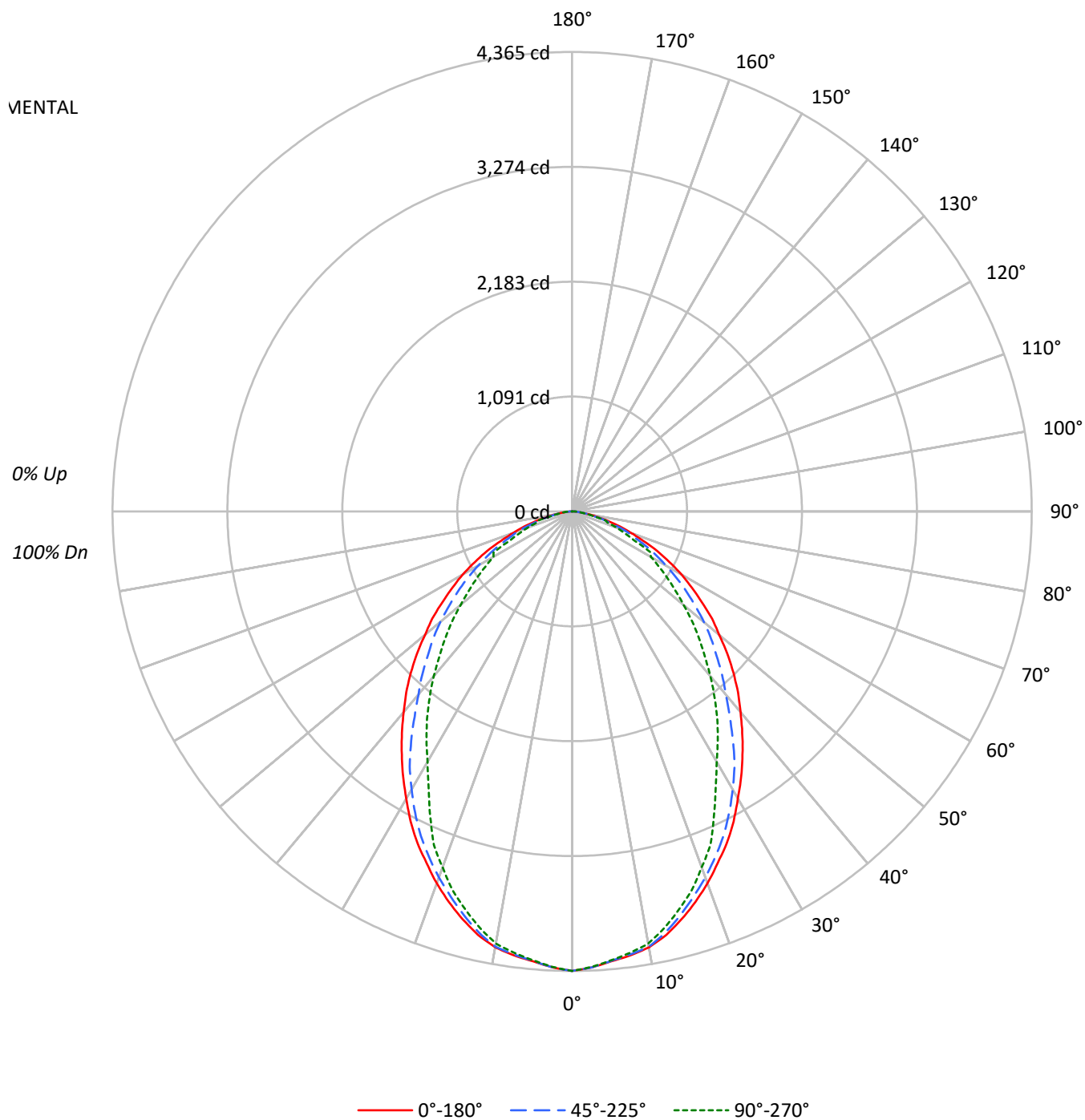
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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		
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°	5873	5873	5873
5°	5793	5786	5779
10°	5743	5736	5695
15°	5588	5532	5455
20°	5383	5296	5152
25°	5162	5049	4735
30°	4892	4735	4265
35°	4633	4376	3945
40°	4370	3988	3590
45°	4119	3687	3245
50°	3813	3422	2894
55°	3528	3101	2592
60°	3232	2770	2322
65°	2844	2426	2056
70°	2342	2124	1747
75°	1863	1627	1705
80°	1251	1173	1095
85°	780	936	1090

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4119 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.3	4.7
10°-20°	1115.1	13.0
20°-30°	1543.8	18.0
30°-40°	1646.1	19.2
40°-50°	1501.7	17.5
50°-60°	1176.5	13.7
60°-70°	766.8	8.9
70°-80°	339.7	4.0
80°-90°	72.9	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°	3065.2	35.8
0°-40°	4711.3	55.0
0°-60°	7389.6	86.2
0°-90°	8569.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8569.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4365	4365	4365	4365	4365	
5°	4289	4284	4284	4279	4279	407
15°	4012	4012	3971	3931	3916	1128
25°	3477	3457	3401	3280	3189	1596
35°	2821	2801	2664	2462	2402	1764
45°	2165	2119	1938	1776	1706	1668
55°	1504	1458	1322	1166	1105	1349
65°	893	843	762	777	646	880
75°	358	333	313	298	328	384
85°	50	56	61	66	71	70
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4364.9	4364.9	4364.9	4364.9	4364.9
2.5°	4334.7	4334.7	4334.7	4329.6	4329.6
5°	4289.2	4284.2	4284.2	4279.1	4279.1
7.5°	4253.9	4248.9	4243.8	4238.8	4228.7
10°	4203.5	4203.5	4198.4	4173.2	4168.1
12.5°	4122.7	4117.7	4097.5	4062.2	4052.1
15°	4011.7	4011.7	3971.3	3931.0	3915.8
17.5°	3890.6	3885.5	3835.1	3794.7	3774.5
20°	3759.4	3749.3	3698.8	3633.2	3597.9
22.5°	3613.1	3613.1	3552.5	3466.7	3431.4
25°	3476.8	3456.6	3401.1	3280.0	3189.2
27.5°	3320.4	3290.1	3229.5	3058.0	2952.0
30°	3148.8	3133.7	3047.9	2825.9	2745.1
32.5°	2987.3	2962.1	2871.3	2639.1	2573.5
35°	2820.8	2800.6	2664.4	2462.5	2402.0
37.5°	2654.3	2629.1	2457.5	2296.0	2220.3
40°	2487.8	2457.5	2270.8	2124.4	2043.7
42.5°	2331.3	2291.0	2109.3	1952.9	1862.0
45°	2164.8	2119.4	1937.7	1776.3	1705.6
47.5°	1998.3	1957.9	1791.4	1624.9	1544.1
50°	1821.7	1786.3	1635.0	1468.4	1382.6
52.5°	1675.3	1619.8	1473.5	1307.0	1236.3
55°	1503.8	1458.3	1322.1	1165.7	1105.1
57.5°	1347.3	1301.9	1175.8	1029.4	979.0
60°	1201.0	1135.4	1029.4	903.3	862.9
62.5°	1039.5	989.0	898.2	792.2	842.7
65°	893.2	842.7	762.0	777.1	645.9
67.5°	731.7	706.5	635.8	565.2	545.0
70°	595.4	565.2	539.9	464.2	444.1
72.5°	474.3	444.1	408.7	368.4	353.2
75°	358.3	333.0	312.9	297.7	328.0
77.5°	247.3	237.2	222.0	206.9	201.8
80°	161.5	156.4	151.4	146.3	141.3
82.5°	95.9	95.9	95.9	95.9	95.9
85°	50.5	55.5	60.6	65.6	70.6
87.5°	30.3	30.3	35.3	40.4	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)