

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: P563834

Luminaire Tested: FSR-24-4-LD4-4LO-35-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563834
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-LD4-4LO-35-UNV-80-94-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9776.0 lumens
Efficiency: N/A
Efficacy: 104.4 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

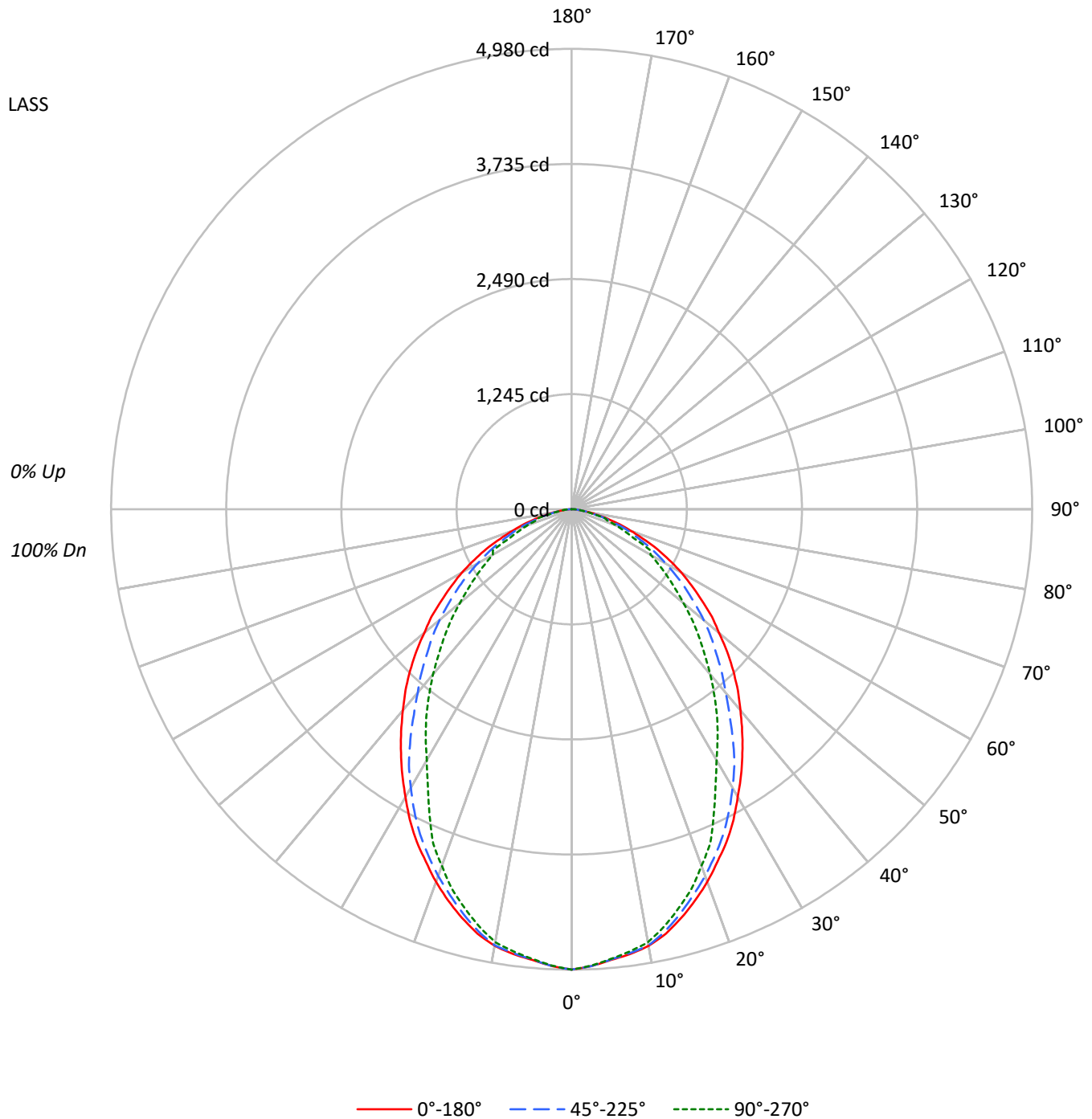
Input Watts (W): 93.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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																												
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°	6700	6700	6700
5°	6609	6601	6594
10°	6552	6544	6497
15°	6375	6311	6223
20°	6141	6042	5877
25°	5889	5760	5402
30°	5581	5402	4866
35°	5286	4993	4501
40°	4985	4550	4095
45°	4699	4207	3702
50°	4350	3904	3302
55°	4024	3538	2958
60°	3687	3160	2649
65°	3244	2768	2346
70°	2672	2423	1993
75°	2125	1855	1945
80°	1427	1338	1249
85°	889	1067	1244

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4699 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	463.5	4.7
10°-20°	1272.2	13.0
20°-30°	1761.2	18.0
30°-40°	1878.0	19.2
40°-50°	1713.3	17.5
50°-60°	1342.2	13.7
60°-70°	874.8	8.9
70°-80°	387.6	4.0
80°-90°	83.2	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°	3496.9	35.8
0°-40°	5374.9	55.0
0°-60°	8430.4	86.2
0°-90°	9776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4980	4980	4980	4980	4980	
5°	4893	4888	4888	4882	4882	464
15°	4577	4577	4531	4485	4467	1287
25°	3966	3944	3880	3742	3638	1821
35°	3218	3195	3040	2809	2740	2012
45°	2470	2418	2211	2026	1946	1902
55°	1716	1664	1508	1330	1261	1539
65°	1019	961	869	887	737	1004
75°	409	380	357	340	374	438
85°	58	63	69	75	81	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4979.8	4979.8	4979.8	4979.8	4979.8
2.5°	4945.2	4945.2	4945.2	4939.5	4939.5
5°	4893.4	4887.7	4887.7	4881.9	4881.9
7.5°	4853.1	4847.4	4841.6	4835.8	4824.3
10°	4795.5	4795.5	4789.8	4761.0	4755.2
12.5°	4703.4	4697.7	4674.6	4634.3	4622.8
15°	4576.8	4576.8	4530.7	4484.7	4467.4
17.5°	4438.6	4432.9	4375.3	4329.2	4306.2
20°	4288.9	4277.4	4219.8	4145.0	4104.7
22.5°	4122.0	4122.0	4052.9	3955.0	3914.7
25°	3966.5	3943.5	3880.2	3742.0	3638.4
27.5°	3788.1	3753.5	3684.4	3488.7	3367.8
30°	3592.3	3575.1	3477.2	3223.9	3131.8
32.5°	3408.1	3379.3	3275.7	3010.9	2936.0
35°	3218.1	3195.1	3039.7	2809.4	2740.3
37.5°	3028.2	2999.4	2803.6	2619.4	2533.1
40°	2838.2	2803.6	2590.6	2423.7	2331.6
42.5°	2659.7	2613.7	2406.4	2227.9	2124.3
45°	2469.7	2417.9	2210.7	2026.4	1945.8
47.5°	2279.8	2233.7	2043.7	1853.7	1761.6
50°	2078.3	2038.0	1865.3	1675.3	1577.4
52.5°	1911.3	1848.0	1681.0	1491.1	1410.5
55°	1715.6	1663.8	1508.3	1329.9	1260.8
57.5°	1537.1	1485.3	1341.4	1174.4	1116.8
60°	1370.2	1295.3	1174.4	1030.5	984.4
62.5°	1185.9	1128.4	1024.7	903.8	961.4
65°	1019.0	961.4	869.3	886.6	736.9
67.5°	834.8	806.0	725.4	644.8	621.8
70°	679.3	644.8	616.0	529.6	506.6
72.5°	541.2	506.6	466.3	420.3	403.0
75°	408.7	380.0	356.9	339.7	374.2
77.5°	282.1	270.6	253.3	236.0	230.3
80°	184.2	178.5	172.7	167.0	161.2
82.5°	109.4	109.4	109.4	109.4	109.4
85°	57.6	63.3	69.1	74.8	80.6
87.5°	34.5	34.5	40.3	46.1	51.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)