

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: P562495

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562495
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-LD4-2HI-35-UNV-80-97-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9149.0 lumens
Efficiency: N/A
Efficacy: 105.9 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

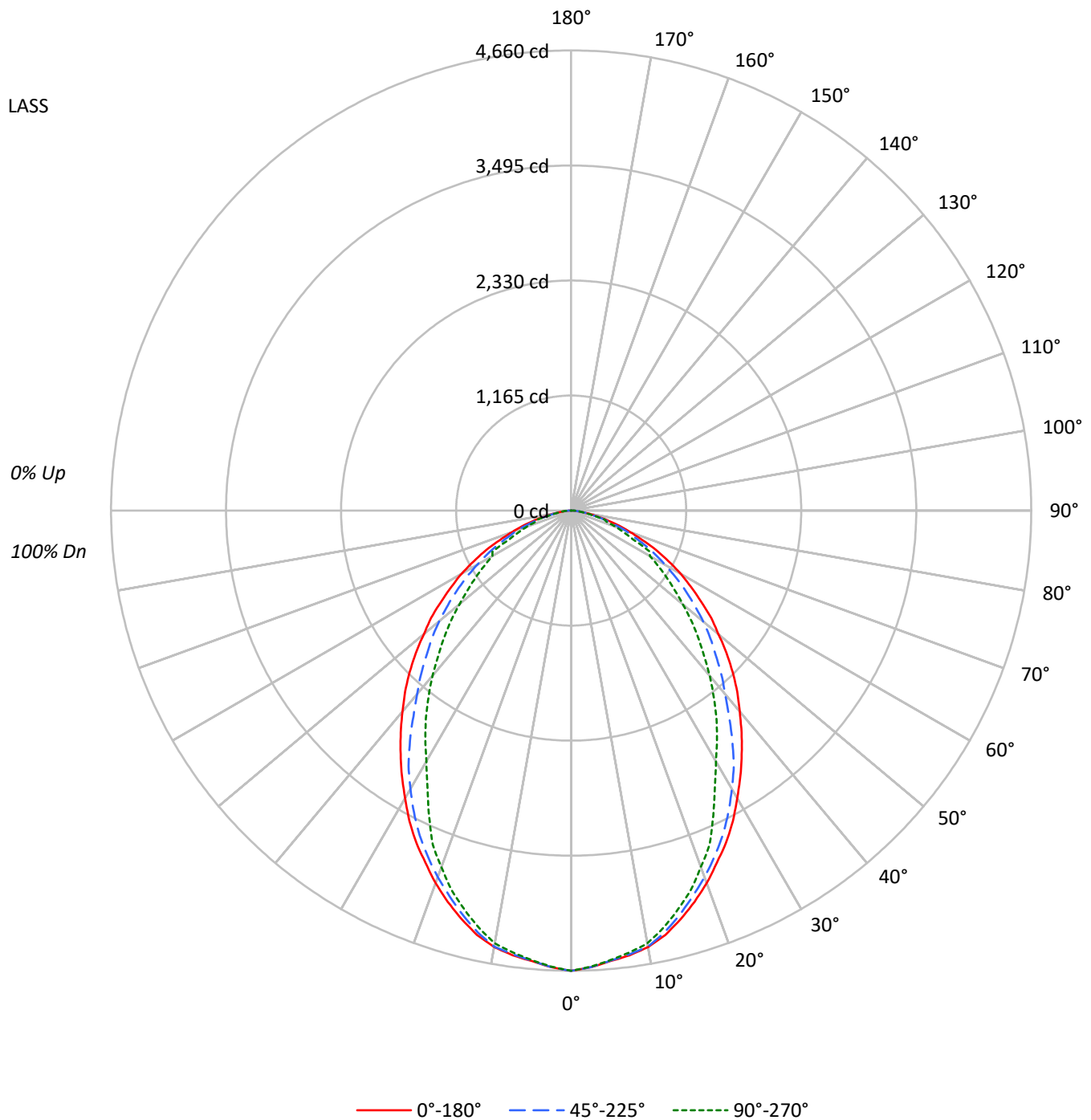
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6271	6271	6271
5°	6185	6178	6171
10°	6132	6124	6080
15°	5966	5906	5824
20°	5747	5655	5500
25°	5511	5391	5055
30°	5223	5056	4554
35°	4947	4673	4212
40°	4665	4258	3832
45°	4398	3937	3465
50°	4071	3654	3090
55°	3766	3311	2768
60°	3451	2958	2479
65°	3036	2590	2195
70°	2501	2268	1865
75°	1988	1736	1821
80°	1336	1252	1169
85°	832	999	1164

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4398 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.8	4.7
10°-20°	1190.6	13.0
20°-30°	1648.3	18.0
30°-40°	1757.5	19.2
40°-50°	1603.4	17.5
50°-60°	1256.1	13.7
60°-70°	818.7	8.9
70°-80°	362.7	4.0
80°-90°	77.9	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°	3272.7	35.8
0°-40°	5030.2	55.0
0°-60°	7889.7	86.2
0°-90°	9149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4660	4660	4660	4660	4660	
5°	4580	4574	4574	4569	4569	435
15°	4283	4283	4240	4197	4181	1204
25°	3712	3691	3631	3502	3405	1704
35°	3012	2990	2845	2629	2565	1883
45°	2311	2263	2069	1896	1821	1780
55°	1606	1557	1412	1245	1180	1440
65°	954	900	814	830	690	940
75°	382	356	334	318	350	410
85°	54	59	65	70	75	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4660.4	4660.4	4660.4	4660.4	4660.4
2.5°	4628.1	4628.1	4628.1	4622.7	4622.7
5°	4579.6	4574.2	4574.2	4568.8	4568.8
7.5°	4541.8	4536.5	4531.1	4525.7	4514.9
10°	4488.0	4488.0	4482.6	4455.6	4450.3
12.5°	4401.8	4396.4	4374.8	4337.1	4326.3
15°	4283.2	4283.2	4240.1	4197.0	4180.9
17.5°	4153.9	4148.5	4094.7	4051.6	4030.0
20°	4013.9	4003.1	3949.2	3879.2	3841.4
22.5°	3857.6	3857.6	3793.0	3701.4	3663.7
25°	3712.1	3690.6	3631.3	3502.0	3405.0
27.5°	3545.1	3512.8	3448.1	3265.0	3151.8
30°	3361.9	3345.8	3254.2	3017.1	2930.9
32.5°	3189.5	3162.6	3065.6	2817.8	2747.7
35°	3011.7	2990.2	2844.7	2629.2	2564.6
37.5°	2833.9	2807.0	2623.8	2451.4	2370.6
40°	2656.1	2623.8	2424.5	2268.2	2182.0
42.5°	2489.1	2446.0	2252.1	2085.0	1988.1
45°	2311.3	2262.8	2068.9	1896.5	1821.0
47.5°	2133.5	2090.4	1912.6	1734.8	1648.6
50°	1945.0	1907.3	1745.6	1567.8	1476.2
52.5°	1788.7	1729.5	1573.2	1395.4	1320.0
55°	1605.5	1557.1	1411.6	1244.6	1179.9
57.5°	1438.5	1390.0	1255.3	1099.1	1045.2
60°	1282.3	1212.2	1099.1	964.4	921.3
62.5°	1109.9	1056.0	959.0	845.9	899.7
65°	953.6	899.7	813.5	829.7	689.6
67.5°	781.2	754.3	678.9	603.4	581.9
70°	635.8	603.4	576.5	495.7	474.1
72.5°	506.4	474.1	436.4	393.3	377.1
75°	382.5	355.6	334.0	317.9	350.2
77.5°	264.0	253.2	237.1	220.9	215.5
80°	172.4	167.0	161.6	156.2	150.9
82.5°	102.4	102.4	102.4	102.4	102.4
85°	53.9	59.3	64.7	70.0	75.4
87.5°	32.3	32.3	37.7	43.1	48.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)