

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: P562482

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562482
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-80-85-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7851.0 lumens
Efficiency: N/A
Efficacy: 90.9 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

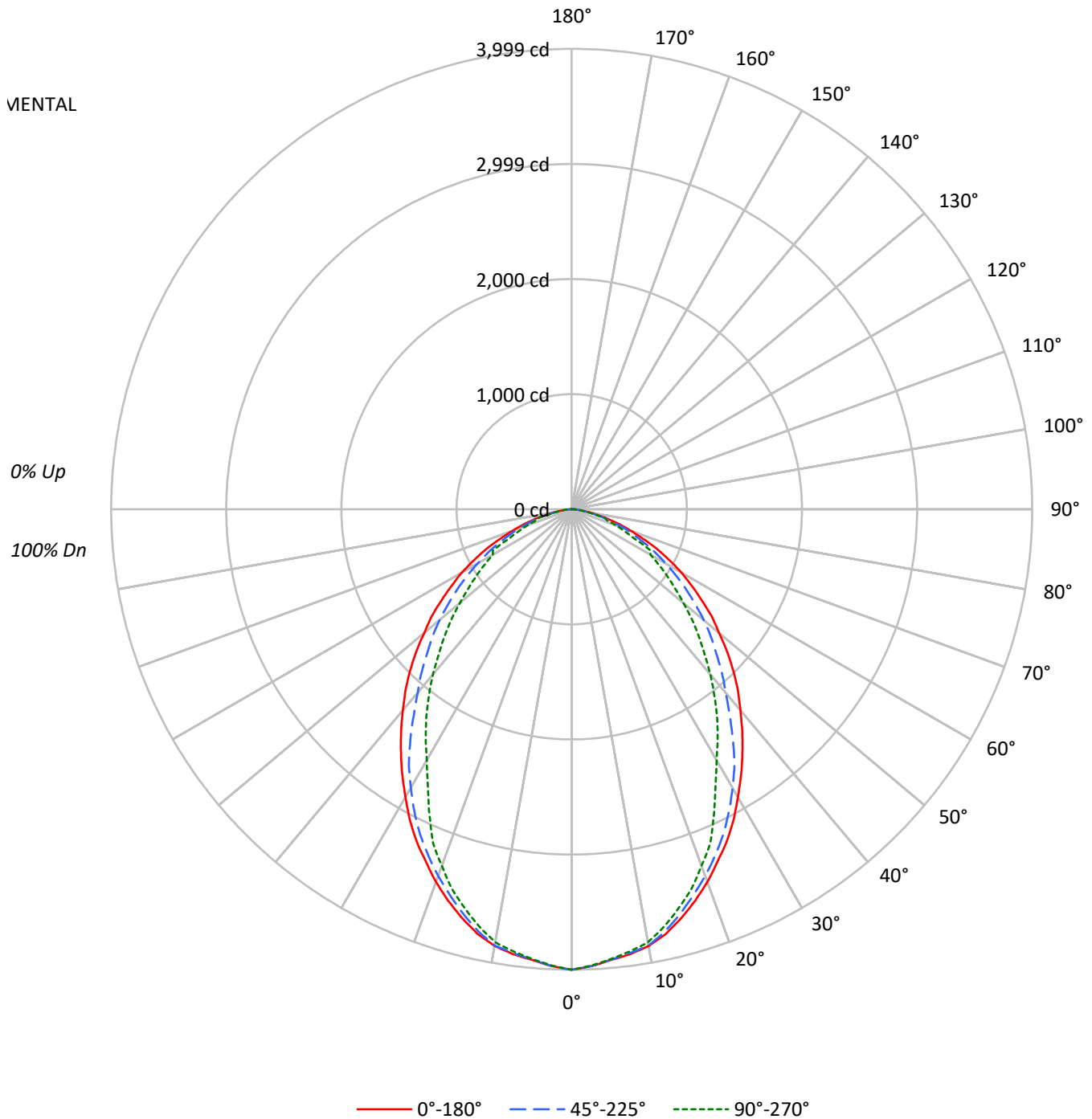
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5381	5381	5381
5°	5308	5301	5295
10°	5262	5255	5218
15°	5120	5068	4997
20°	4932	4852	4720
25°	4729	4626	4338
30°	4482	4339	3908
35°	4245	4010	3615
40°	4003	3654	3289
45°	3774	3378	2974
50°	3494	3136	2652
55°	3232	2841	2375
60°	2961	2538	2127
65°	2605	2223	1884
70°	2146	1946	1601
75°	1707	1490	1562
80°	1146	1075	1003
85°	713	857	999

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.3	4.7
10°-20°	1021.7	13.0
20°-30°	1414.4	18.0
30°-40°	1508.2	19.2
40°-50°	1375.9	17.5
50°-60°	1077.9	13.7
60°-70°	702.5	8.9
70°-80°	311.2	4.0
80°-90°	66.8	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°	2808.4	35.8
0°-40°	4316.6	55.0
0°-60°	6770.4	86.2
0°-90°	7851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3999	3999	3999	3999	3999	
5°	3930	3925	3925	3921	3921	373
15°	3676	3676	3639	3602	3588	1033
25°	3186	3167	3116	3005	2922	1462
35°	2584	2566	2441	2256	2201	1616
45°	1983	1942	1775	1627	1563	1528
55°	1378	1336	1211	1068	1012	1236
65°	818	772	698	712	592	806
75°	328	305	287	273	300	352
85°	46	51	56	60	65	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3999.2	3999.2	3999.2	3999.2	3999.2
2.5°	3971.5	3971.5	3971.5	3966.8	3966.8
5°	3929.8	3925.2	3925.2	3920.6	3920.6
7.5°	3897.5	3892.9	3888.2	3883.6	3874.4
10°	3851.2	3851.2	3846.6	3823.5	3818.9
12.5°	3777.3	3772.7	3754.2	3721.8	3712.5
15°	3675.6	3675.6	3638.6	3601.6	3587.7
17.5°	3564.6	3560.0	3513.7	3476.8	3458.3
20°	3444.4	3435.1	3388.9	3328.8	3296.4
22.5°	3310.3	3310.3	3254.8	3176.2	3143.9
25°	3185.5	3167.0	3116.1	3005.2	2922.0
27.5°	3042.2	3014.4	2958.9	2801.7	2704.7
30°	2885.0	2871.1	2792.5	2589.1	2515.1
32.5°	2737.0	2713.9	2630.7	2418.0	2357.9
35°	2584.5	2566.0	2441.1	2256.2	2200.7
37.5°	2431.9	2408.8	2251.6	2103.6	2034.3
40°	2279.3	2251.6	2080.5	1946.4	1872.5
42.5°	2136.0	2099.0	1932.6	1789.2	1706.0
45°	1983.4	1941.8	1775.4	1627.4	1562.7
47.5°	1830.8	1793.9	1641.3	1488.7	1414.7
50°	1669.0	1636.7	1498.0	1345.4	1266.8
52.5°	1535.0	1484.1	1350.0	1197.4	1132.7
55°	1377.8	1336.1	1211.3	1068.0	1012.5
57.5°	1234.4	1192.8	1077.2	943.2	896.9
60°	1100.4	1040.3	943.2	827.6	790.6
62.5°	952.4	906.2	823.0	725.9	772.1
65°	818.3	772.1	698.1	712.0	591.8
67.5°	670.4	647.3	582.5	517.8	499.3
70°	545.6	517.8	494.7	425.3	406.9
72.5°	434.6	406.9	374.5	337.5	323.6
75°	328.3	305.1	286.6	272.8	300.5
77.5°	226.5	217.3	203.4	189.6	184.9
80°	147.9	143.3	138.7	134.1	129.5
82.5°	87.8	87.8	87.8	87.8	87.8
85°	46.2	50.9	55.5	60.1	64.7
87.5°	27.7	27.7	32.4	37.0	41.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)