

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: P563574

Luminaire Tested: FSR-24-4-LD4-3STD-50-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563574
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-50-UNV-80-87-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9809.0 lumens
Efficiency: N/A
Efficacy: 98.2 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

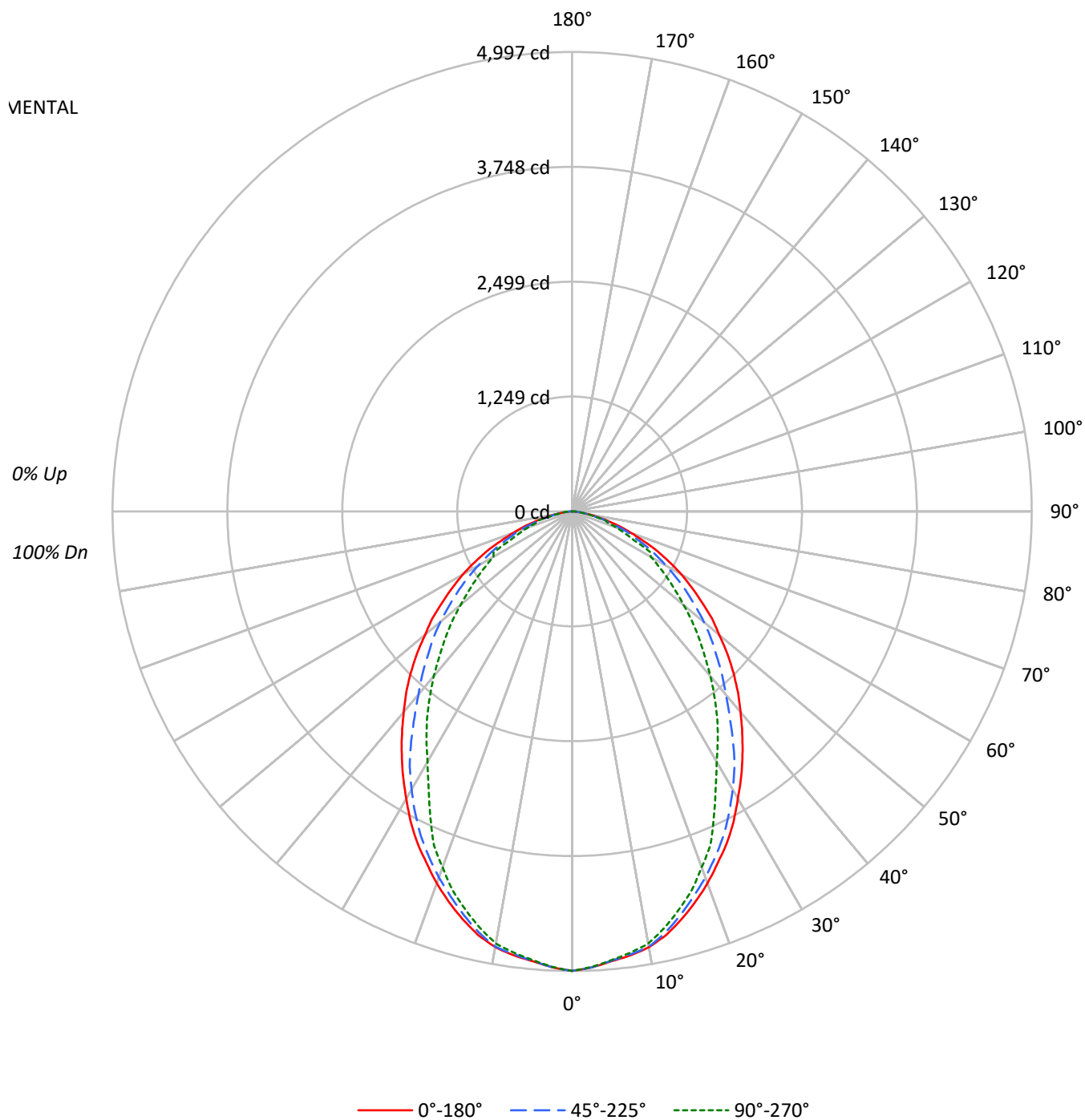
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
RW	70	50	30	10	70	50	30	10	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°	6723	6723	6723
5°	6631	6624	6616
10°	6574	6566	6519
15°	6397	6332	6244
20°	6162	6063	5897
25°	5908	5780	5420
30°	5600	5420	4882
35°	5304	5010	4516
40°	5002	4566	4109
45°	4715	4221	3715
50°	4365	3917	3313
55°	4038	3550	2967
60°	3700	3171	2658
65°	3255	2777	2354
70°	2681	2432	2000
75°	2132	1862	1952
80°	1432	1343	1253
85°	892	1070	1249

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4715 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.1	4.7
10°-20°	1276.5	13.0
20°-30°	1767.2	18.0
30°-40°	1884.3	19.2
40°-50°	1719.1	17.5
50°-60°	1346.7	13.7
60°-70°	877.8	8.9
70°-80°	388.9	4.0
80°-90°	83.5	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°	3508.8	35.8
0°-40°	5393.1	55.0
0°-60°	8458.9	86.2
0°-90°	9809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4997	4997	4997	4997	4997	
5°	4910	4904	4904	4898	4898	466
15°	4592	4592	4546	4500	4482	1291
25°	3980	3957	3893	3755	3651	1827
35°	3229	3206	3050	2819	2750	2019
45°	2478	2426	2218	2033	1952	1909
55°	1721	1669	1513	1334	1265	1544
65°	1022	965	872	890	739	1008
75°	410	381	358	341	376	440
85°	58	64	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°	4996.6	4996.6	4996.6	4996.6	4996.6
2.5°	4961.9	4961.9	4961.9	4956.1	4956.1
5°	4909.9	4904.2	4904.2	4898.4	4898.4
7.5°	4869.5	4863.7	4857.9	4852.2	4840.6
10°	4811.7	4811.7	4806.0	4777.1	4771.3
12.5°	4719.3	4713.5	4690.4	4650.0	4638.4
15°	4592.2	4592.2	4546.0	4499.8	4482.5
17.5°	4453.6	4447.8	4390.1	4343.8	4320.7
20°	4303.4	4291.9	4234.1	4159.0	4118.6
22.5°	4135.9	4135.9	4066.6	3968.4	3927.9
25°	3979.9	3956.8	3893.3	3754.7	3650.7
27.5°	3800.9	3766.2	3696.9	3500.5	3379.2
30°	3604.5	3587.1	3488.9	3234.8	3142.4
32.5°	3419.6	3390.7	3286.8	3021.0	2946.0
35°	3229.0	3205.9	3049.9	2818.9	2749.6
37.5°	3038.4	3009.5	2813.1	2628.3	2541.6
40°	2847.8	2813.1	2599.4	2431.9	2339.4
42.5°	2668.7	2622.5	2414.5	2235.5	2131.5
45°	2478.1	2426.1	2218.1	2033.3	1952.4
47.5°	2287.4	2241.2	2050.6	1860.0	1767.6
50°	2085.3	2044.8	1871.5	1680.9	1582.7
52.5°	1917.8	1854.2	1686.7	1496.1	1415.2
55°	1721.4	1669.4	1513.4	1334.3	1265.0
57.5°	1542.3	1490.3	1345.9	1178.4	1120.6
60°	1374.8	1299.7	1178.4	1034.0	987.8
62.5°	1189.9	1132.2	1028.2	906.9	964.7
65°	1022.4	964.7	872.2	889.6	739.4
67.5°	837.6	808.7	727.8	647.0	623.8
70°	681.6	647.0	618.1	531.4	508.3
72.5°	543.0	508.3	467.9	421.7	404.3
75°	410.1	381.2	358.1	340.8	375.5
77.5°	283.0	271.5	254.2	236.8	231.1
80°	184.8	179.1	173.3	167.5	161.7
82.5°	109.8	109.8	109.8	109.8	109.8
85°	57.8	63.5	69.3	75.1	80.9
87.5°	34.7	34.7	40.4	46.2	52.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)