

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: P563449

Luminaire Tested: FSR-24-4-LD4-3STD-35-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563449
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-35-UNV-80-88-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9885.0 lumens
Efficiency: N/A
Efficacy: 98.9 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

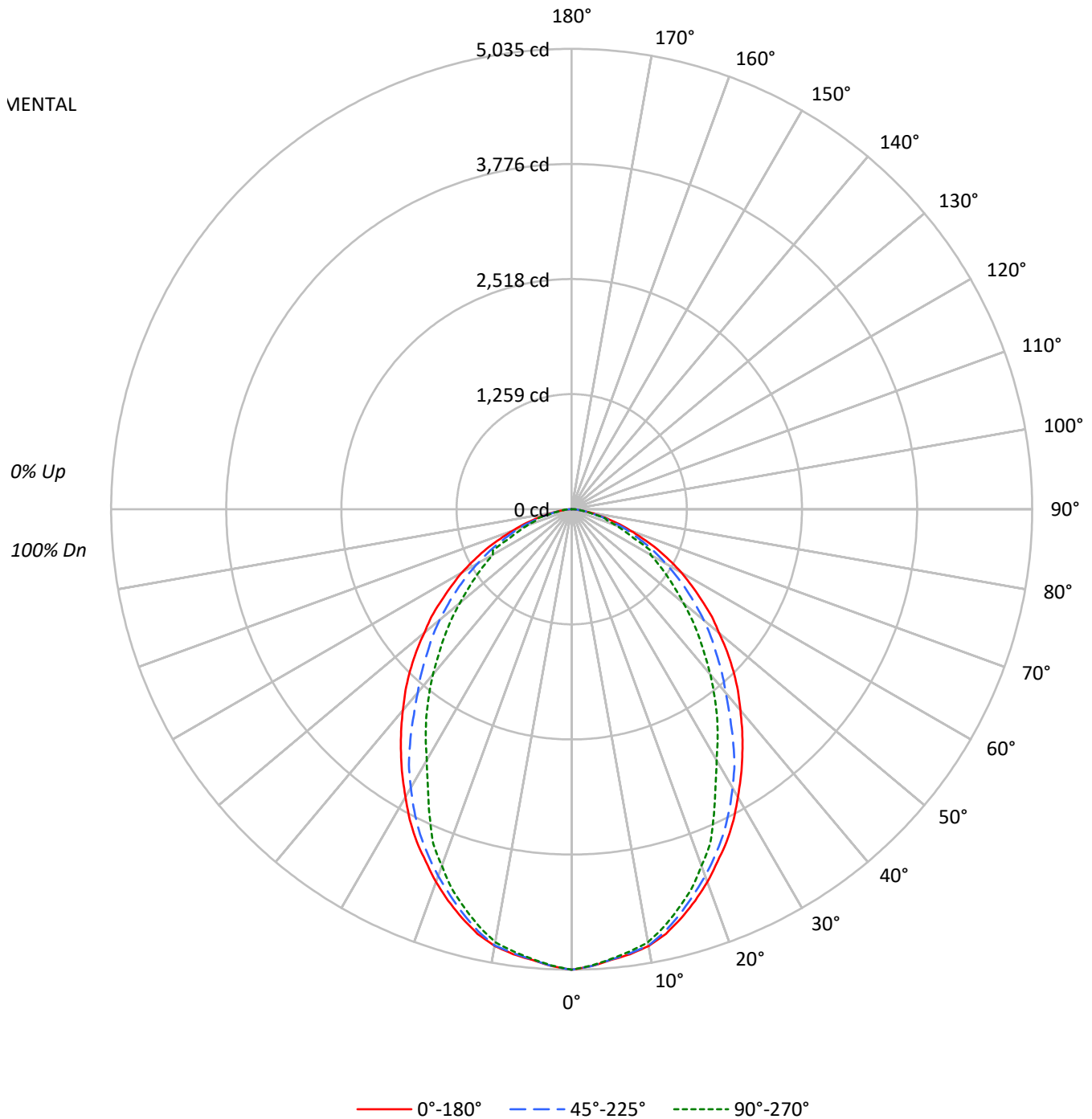
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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°	6775	6775	6775
5°	6683	6675	6667
10°	6625	6617	6569
15°	6446	6381	6292
20°	6210	6110	5943
25°	5954	5825	5462
30°	5643	5463	4920
35°	5345	5049	4551
40°	5041	4601	4141
45°	4752	4253	3744
50°	4399	3948	3339
55°	4069	3578	2990
60°	3728	3196	2679
65°	3280	2798	2372
70°	2702	2450	2015
75°	2149	1876	1967
80°	1444	1353	1263
85°	898	1079	1258

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4752 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	468.7	4.7
10°-20°	1286.4	13.0
20°-30°	1780.9	18.0
30°-40°	1898.9	19.2
40°-50°	1732.4	17.5
50°-60°	1357.2	13.7
60°-70°	884.6	8.9
70°-80°	391.9	4.0
80°-90°	84.1	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°	3535.9	35.8
0°-40°	5434.9	55.0
0°-60°	8524.4	86.2
0°-90°	9885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9885.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5035	5035	5035	5035	5035	
5°	4948	4942	4942	4936	4936	470
15°	4628	4628	4581	4535	4517	1301
25°	4011	3988	3923	3784	3679	1841
35°	3254	3231	3074	2841	2771	2034
45°	2497	2445	2235	2049	1968	1924
55°	1735	1682	1525	1345	1275	1556
65°	1030	972	879	896	745	1015
75°	413	384	361	343	378	443
85°	58	64	70	76	82	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5035.3	5035.3	5035.3	5035.3	5035.3
2.5°	5000.4	5000.4	5000.4	4994.5	4994.5
5°	4948.0	4942.1	4942.1	4936.3	4936.3
7.5°	4907.2	4901.4	4895.6	4889.8	4878.1
10°	4849.0	4849.0	4843.2	4814.1	4808.3
12.5°	4755.9	4750.1	4726.8	4686.0	4674.4
15°	4627.8	4627.8	4581.2	4534.7	4517.2
17.5°	4488.1	4482.3	4424.1	4377.5	4354.2
20°	4336.8	4325.1	4266.9	4191.2	4150.5
22.5°	4167.9	4167.9	4098.1	3999.1	3958.4
25°	4010.8	3987.5	3923.4	3783.7	3679.0
27.5°	3830.3	3795.4	3725.5	3527.6	3405.4
30°	3632.4	3614.9	3516.0	3259.8	3166.7
32.5°	3446.1	3417.0	3312.2	3044.5	2968.8
35°	3254.0	3230.7	3073.6	2840.7	2770.9
37.5°	3061.9	3032.8	2834.9	2648.6	2561.3
40°	2869.8	2834.9	2619.5	2450.7	2357.6
42.5°	2689.4	2642.8	2433.2	2252.8	2148.0
45°	2497.3	2444.9	2235.3	2049.0	1967.5
47.5°	2305.2	2258.6	2066.5	1874.4	1781.3
50°	2101.4	2060.7	1886.0	1694.0	1595.0
52.5°	1932.6	1868.6	1699.8	1507.7	1426.2
55°	1734.7	1682.3	1525.1	1344.7	1274.8
57.5°	1554.2	1501.9	1356.3	1187.5	1129.3
60°	1385.4	1309.8	1187.5	1042.0	995.4
62.5°	1199.2	1140.9	1036.2	913.9	972.1
65°	1030.3	972.1	879.0	896.5	745.1
67.5°	844.1	815.0	733.5	652.0	628.7
70°	686.9	652.0	622.9	535.5	512.3
72.5°	547.2	512.3	471.5	424.9	407.5
75°	413.3	384.2	360.9	343.4	378.4
77.5°	285.2	273.6	256.1	238.7	232.8
80°	186.3	180.5	174.6	168.8	163.0
82.5°	110.6	110.6	110.6	110.6	110.6
85°	58.2	64.0	69.9	75.7	81.5
87.5°	34.9	34.9	40.7	46.6	52.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)