

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: P563575

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563575
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
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11275.0 lumens
Efficiency: N/A
Efficacy: 112.9 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

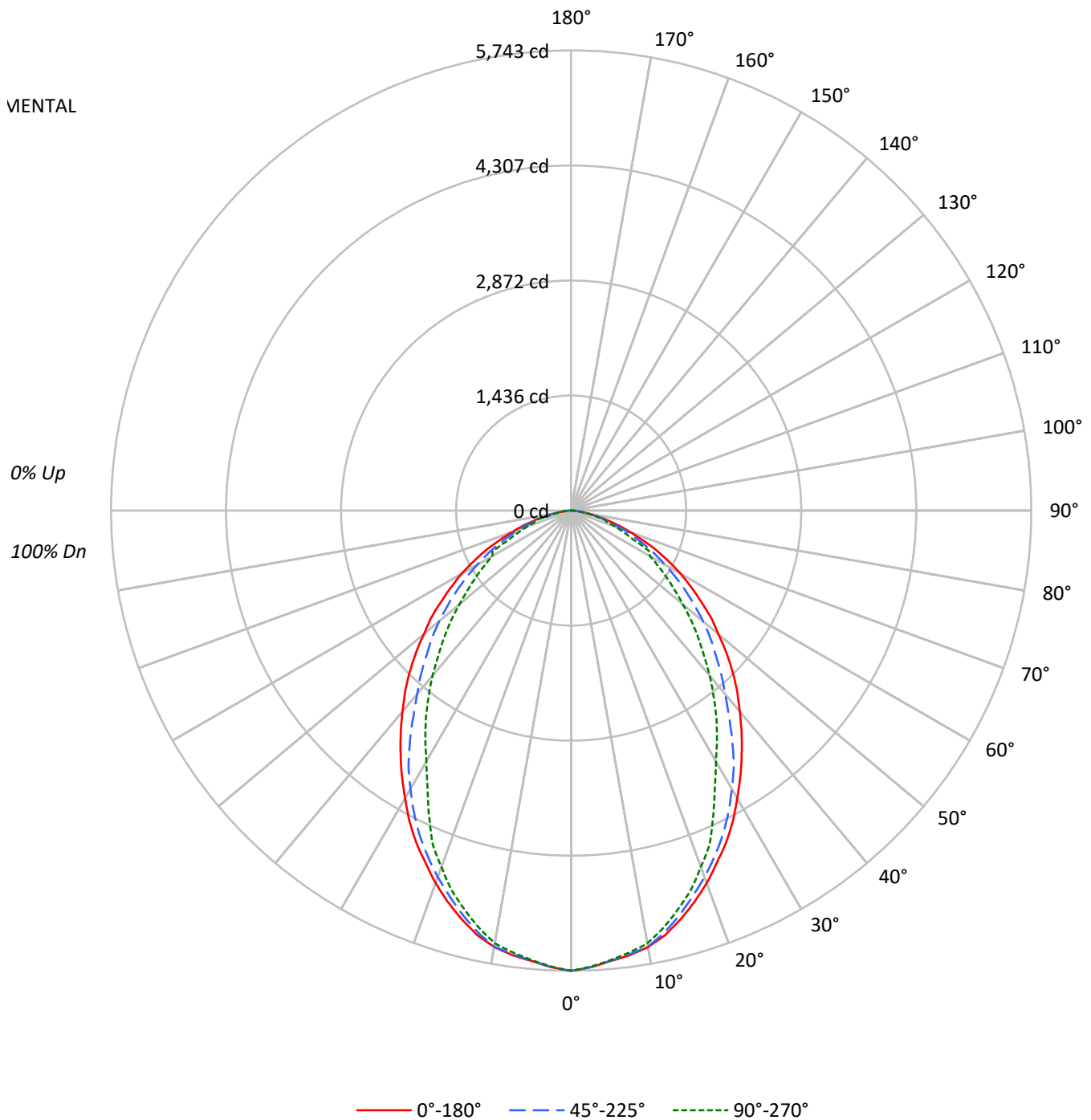
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7728	7728	7728
5°	7623	7614	7605
10°	7557	7547	7493
15°	7353	7279	7177
20°	7083	6969	6778
25°	6792	6644	6230
30°	6437	6231	5612
35°	6096	5758	5191
40°	5749	5248	4723
45°	5420	4851	4270
50°	5017	4503	3808
55°	4641	4081	3411
60°	4252	3645	3055
65°	3741	3192	2706
70°	3082	2795	2299
75°	2451	2140	2244
80°	1647	1543	1440
85°	1025	1230	1436

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5420 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	534.6	4.7
10°-20°	1467.2	13.0
20°-30°	2031.3	18.0
30°-40°	2166.0	19.2
40°-50°	1976.0	17.5
50°-60°	1548.0	13.7
60°-70°	1008.9	8.9
70°-80°	447.0	4.0
80°-90°	96.0	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°	4033.2	35.8
0°-40°	6199.1	55.0
0°-60°	9723.1	86.2
0°-90°	11275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5743	5743	5743	5743	5743	
5°	5644	5637	5637	5630	5630	536
15°	5279	5279	5225	5172	5152	1484
25°	4575	4548	4475	4316	4196	2100
35°	3712	3685	3506	3240	3160	2320
45°	2848	2789	2550	2337	2244	2194
55°	1979	1919	1740	1534	1454	1775
65°	1175	1109	1003	1022	850	1158
75°	471	438	412	392	432	505
85°	66	73	80	86	93	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5743.3	5743.3	5743.3	5743.3	5743.3
2.5°	5703.5	5703.5	5703.5	5696.9	5696.9
5°	5643.7	5637.1	5637.1	5630.5	5630.5
7.5°	5597.3	5590.6	5584.0	5577.3	5564.1
10°	5530.9	5530.9	5524.2	5491.0	5484.4
12.5°	5424.6	5418.0	5391.4	5345.0	5331.7
15°	5278.6	5278.6	5225.4	5172.3	5152.4
17.5°	5119.2	5112.6	5046.2	4993.0	4966.5
20°	4946.6	4933.3	4866.9	4780.6	4734.1
22.5°	4754.0	4754.0	4674.3	4561.5	4515.0
25°	4574.7	4548.2	4475.2	4315.8	4196.3
27.5°	4368.9	4329.1	4249.4	4023.7	3884.2
30°	4143.2	4123.2	4010.4	3718.2	3612.0
32.5°	3930.7	3897.5	3778.0	3472.6	3386.2
35°	3711.6	3685.0	3505.8	3240.2	3160.5
37.5°	3492.5	3459.3	3233.5	3021.1	2921.5
40°	3273.4	3233.5	2987.9	2795.3	2689.1
42.5°	3067.5	3014.4	2775.4	2569.6	2450.0
45°	2848.4	2788.7	2549.6	2337.2	2244.2
47.5°	2629.3	2576.2	2357.1	2138.0	2031.7
50°	2396.9	2350.5	2151.3	1932.2	1819.3
52.5°	2204.4	2131.3	1938.8	1719.7	1626.7
55°	1978.6	1918.9	1739.6	1533.8	1454.1
57.5°	1772.8	1713.0	1547.0	1354.5	1288.1
60°	1580.2	1493.9	1354.5	1188.5	1135.4
62.5°	1367.8	1301.4	1181.9	1042.4	1108.8
65°	1175.2	1108.8	1002.6	1022.5	849.9
67.5°	962.8	929.6	836.6	743.6	717.1
70°	783.5	743.6	710.4	610.9	584.3
72.5°	624.1	584.3	537.8	484.7	464.8
75°	471.4	438.2	411.7	391.7	431.6
77.5°	325.3	312.1	292.1	272.2	265.6
80°	212.5	205.8	199.2	192.6	185.9
82.5°	126.2	126.2	126.2	126.2	126.2
85°	66.4	73.0	79.7	86.3	93.0
87.5°	39.8	39.8	46.5	53.1	59.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)