

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: P563062

Luminaire Tested: FSR-24-4-LD4-3HI-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563062
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-LD4-3HI-35-UNV-80-87-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11266.0 lumens
Efficiency: N/A
Efficacy: 86.9 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

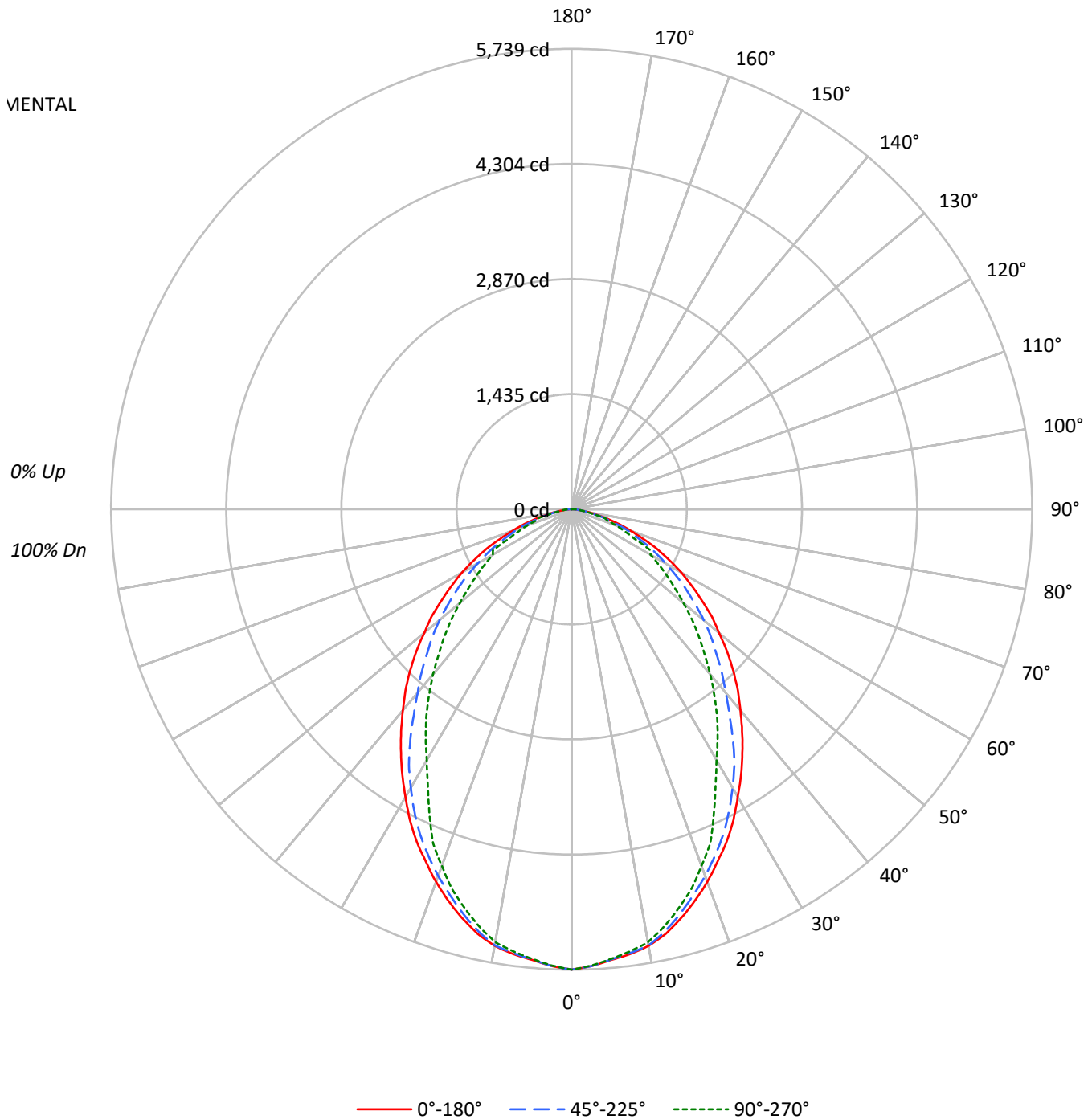
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7721	7721	7721
5°	7616	7608	7599
10°	7550	7541	7487
15°	7347	7273	7171
20°	7077	6963	6773
25°	6786	6638	6225
30°	6432	6226	5607
35°	6092	5754	5187
40°	5745	5244	4719
45°	5416	4848	4267
50°	5013	4499	3805
55°	4638	4077	3408
60°	4249	3642	3053
65°	3739	3189	2704
70°	3080	2793	2297
75°	2449	2138	2242
80°	1645	1542	1440
85°	1024	1229	1434

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5416 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	534.2	4.7
10°-20°	1466.1	13.0
20°-30°	2029.7	18.0
30°-40°	2164.2	19.2
40°-50°	1974.4	17.5
50°-60°	1546.8	13.7
60°-70°	1008.1	8.9
70°-80°	446.6	4.0
80°-90°	95.9	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°	4029.9	35.8
0°-40°	6194.2	55.0
0°-60°	9715.3	86.2
0°-90°	11266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5739	5739	5739	5739	5739	
5°	5639	5633	5633	5626	5626	535
15°	5274	5274	5221	5168	5148	1483
25°	4571	4545	4472	4312	4193	2099
35°	3709	3682	3503	3238	3158	2319
45°	2846	2786	2548	2335	2242	2192
55°	1977	1917	1738	1532	1453	1773
65°	1174	1108	1002	1022	849	1157
75°	471	438	411	391	431	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°	5738.7	5738.7	5738.7	5738.7	5738.7
2.5°	5698.9	5698.9	5698.9	5692.3	5692.3
5°	5639.2	5632.6	5632.6	5626.0	5626.0
7.5°	5592.8	5586.2	5579.5	5572.9	5559.6
10°	5526.4	5526.4	5519.8	5486.6	5480.0
12.5°	5420.3	5413.7	5387.1	5340.7	5327.4
15°	5274.3	5274.3	5221.3	5168.2	5148.3
17.5°	5115.1	5108.5	5042.1	4989.1	4962.5
20°	4942.6	4929.4	4863.0	4776.8	4730.3
22.5°	4750.2	4750.2	4670.6	4557.8	4511.4
25°	4571.1	4544.6	4471.6	4312.4	4192.9
27.5°	4365.4	4325.6	4246.0	4020.4	3881.1
30°	4139.9	4120.0	4007.2	3715.3	3609.1
32.5°	3927.6	3894.4	3775.0	3469.8	3383.5
35°	3708.6	3682.1	3503.0	3237.6	3158.0
37.5°	3489.7	3456.5	3230.9	3018.6	2919.1
40°	3270.8	3230.9	2985.5	2793.1	2686.9
42.5°	3065.1	3012.0	2773.2	2567.5	2448.1
45°	2846.2	2786.4	2547.6	2335.3	2242.4
47.5°	2627.2	2574.1	2355.2	2136.3	2030.1
50°	2395.0	2348.6	2149.5	1930.6	1817.8
52.5°	2202.6	2129.6	1937.2	1718.3	1625.4
55°	1977.0	1917.3	1738.2	1532.5	1452.9
57.5°	1771.4	1711.7	1545.8	1353.4	1287.1
60°	1579.0	1492.7	1353.4	1187.6	1134.5
62.5°	1366.7	1300.3	1180.9	1041.6	1107.9
65°	1174.3	1107.9	1001.8	1021.7	849.2
67.5°	962.0	928.8	835.9	743.1	716.5
70°	782.9	743.1	709.9	610.4	583.8
72.5°	623.6	583.8	537.4	484.3	464.4
75°	471.0	437.9	411.3	391.4	431.2
77.5°	325.1	311.8	291.9	272.0	265.4
80°	212.3	205.7	199.0	192.4	185.8
82.5°	126.1	126.1	126.1	126.1	126.1
85°	66.3	73.0	79.6	86.2	92.9
87.5°	39.8	39.8	46.4	53.1	59.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)