

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: P560135

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560135
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-12-2-LD4-1STD-50-UNV-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1396.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

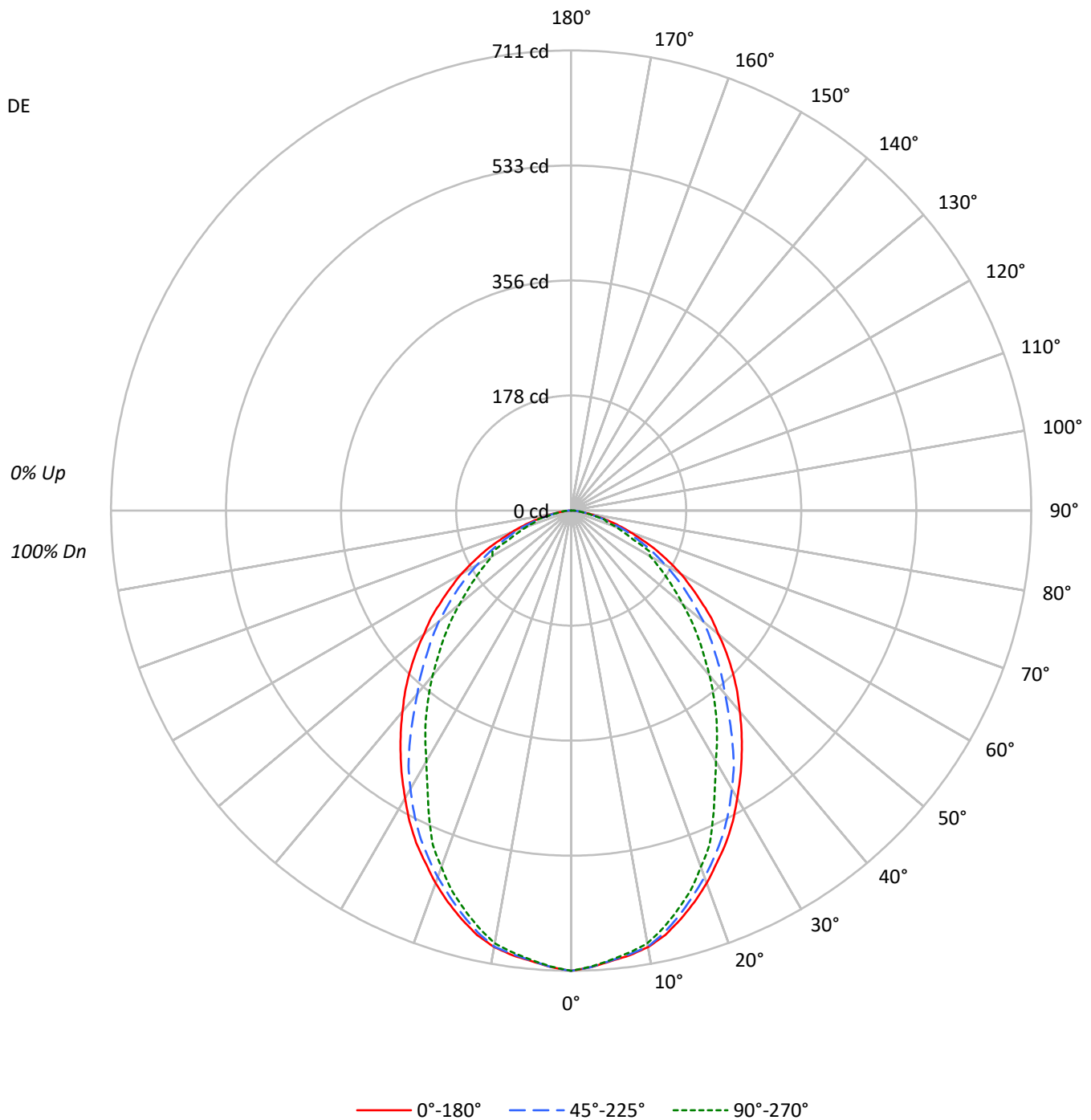
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													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°	3827	3827	3827
5°	3775	3771	3766
10°	3742	3738	3711
15°	3642	3605	3554
20°	3508	3451	3357
25°	3363	3290	3086
30°	3188	3086	2779
35°	3019	2852	2571
40°	2847	2599	2339
45°	2684	2403	2115
50°	2485	2231	1886
55°	2299	2021	1689
60°	2106	1805	1513
65°	1853	1580	1340
70°	1526	1385	1138
75°	1214	1061	1110
80°	815	766	713
85°	506	611	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2684 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	4.7
10°-20°	181.7	13.0
20°-30°	251.5	18.0
30°-40°	268.2	19.2
40°-50°	244.7	17.5
50°-60°	191.7	13.7
60°-70°	124.9	8.9
70°-80°	55.3	4.0
80°-90°	11.9	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°	499.4	35.8
0°-40°	767.5	55.0
0°-60°	1203.9	86.2
0°-90°	1396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	699	698	698	697	697	66
15°	654	654	647	640	638	184
25°	566	563	554	534	520	260
35°	460	456	434	401	391	287
45°	353	345	316	289	278	272
55°	245	238	215	190	180	220
65°	146	137	124	127	105	143
75°	58	54	51	48	53	63
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.1	711.1	711.1	711.1	711.1
2.5°	706.2	706.2	706.2	705.3	705.3
5°	698.8	698.0	698.0	697.1	697.1
7.5°	693.0	692.2	691.4	690.6	688.9
10°	684.8	684.8	684.0	679.9	679.0
12.5°	671.6	670.8	667.5	661.8	660.1
15°	653.6	653.6	647.0	640.4	637.9
17.5°	633.8	633.0	624.8	618.2	614.9
20°	612.5	610.8	602.6	591.9	586.1
22.5°	588.6	588.6	578.7	564.8	559.0
25°	566.4	563.1	554.1	534.4	519.6
27.5°	540.9	536.0	526.1	498.2	480.9
30°	513.0	510.5	496.5	460.4	447.2
32.5°	486.7	482.6	467.8	430.0	419.3
35°	459.5	456.3	434.1	401.2	391.3
37.5°	432.4	428.3	400.4	374.0	361.7
40°	405.3	400.4	369.9	346.1	332.9
42.5°	379.8	373.2	343.6	318.1	303.3
45°	352.7	345.3	315.7	289.4	277.9
47.5°	325.5	319.0	291.8	264.7	251.6
50°	296.8	291.0	266.4	239.2	225.3
52.5°	272.9	263.9	240.0	212.9	201.4
55°	245.0	237.6	215.4	189.9	180.0
57.5°	219.5	212.1	191.5	167.7	159.5
60°	195.7	185.0	167.7	147.2	140.6
62.5°	169.3	161.1	146.3	129.1	137.3
65°	145.5	137.3	124.1	126.6	105.2
67.5°	119.2	115.1	103.6	92.1	88.8
70°	97.0	92.1	88.0	75.6	72.3
72.5°	77.3	72.3	66.6	60.0	57.5
75°	58.4	54.3	51.0	48.5	53.4
77.5°	40.3	38.6	36.2	33.7	32.9
80°	26.3	25.5	24.7	23.8	23.0
82.5°	15.6	15.6	15.6	15.6	15.6
85°	8.2	9.0	9.9	10.7	11.5
87.5°	4.9	4.9	5.8	6.6	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)