

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: P560710

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560710
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-LD4-2STD-50-UNV-81-87-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2428.0 lumens
Efficiency: N/A
Efficacy: 72.9 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

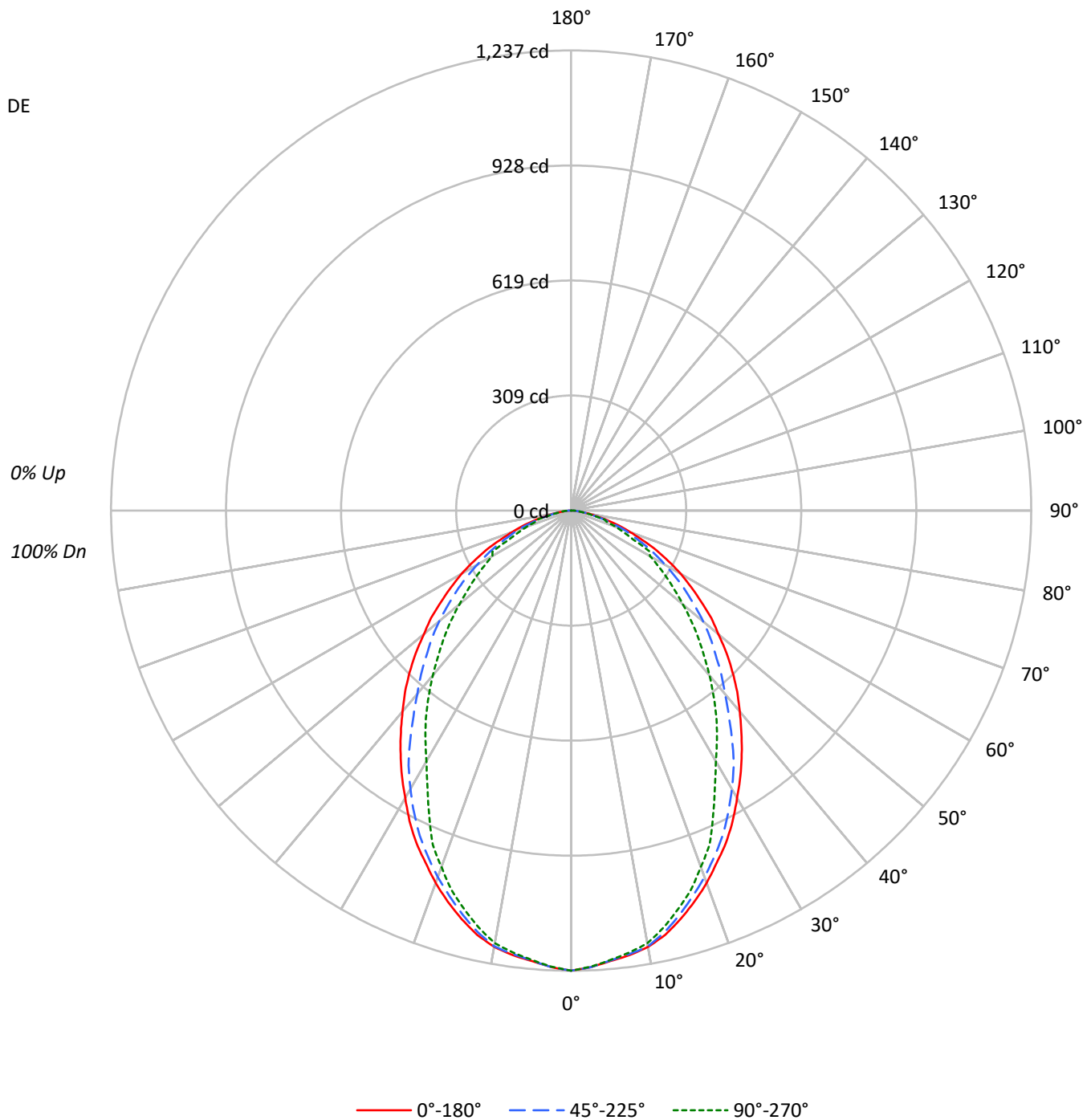
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6656	6656	6656
5°	6566	6558	6551
10°	6509	6501	6454
15°	6333	6270	6182
20°	6101	6003	5839
25°	5850	5723	5366
30°	5545	5367	4834
35°	5252	4960	4472
40°	4952	4520	4069
45°	4669	4179	3679
50°	4322	3879	3280
55°	3998	3515	2938
60°	3663	3140	2632
65°	3223	2749	2330
70°	2655	2408	1980
75°	2111	1842	1932
80°	1420	1330	1240
85°	883	1062	1235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4669 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	4.7
10°-20°	316.0	13.0
20°-30°	437.4	18.0
30°-40°	466.4	19.2
40°-50°	425.5	17.5
50°-60°	333.4	13.7
60°-70°	217.3	8.9
70°-80°	96.3	4.0
80°-90°	20.7	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°	868.5	35.8
0°-40°	1334.9	55.0
0°-60°	2093.8	86.2
0°-90°	2428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1215	1214	1214	1212	1212	115
15°	1137	1137	1125	1114	1110	320
25°	985	979	964	929	904	452
35°	799	794	755	698	681	500
45°	613	600	549	503	483	472
55°	426	413	375	330	313	382
65°	253	239	216	220	183	249
75°	102	94	89	84	93	109
85°	14	16	17	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1236.8	1236.8	1236.8	1236.8	1236.8
2.5°	1228.2	1228.2	1228.2	1226.8	1226.8
5°	1215.3	1213.9	1213.9	1212.5	1212.5
7.5°	1205.3	1203.9	1202.5	1201.0	1198.2
10°	1191.0	1191.0	1189.6	1182.5	1181.0
12.5°	1168.2	1166.7	1161.0	1151.0	1148.1
15°	1136.7	1136.7	1125.3	1113.8	1109.5
17.5°	1102.4	1101.0	1086.7	1075.2	1069.5
20°	1065.2	1062.4	1048.1	1029.5	1019.5
22.5°	1023.7	1023.7	1006.6	982.3	972.3
25°	985.1	979.4	963.7	929.4	903.6
27.5°	940.8	932.2	915.1	866.5	836.4
30°	892.2	887.9	863.6	800.7	777.8
32.5°	846.5	839.3	813.6	747.8	729.2
35°	799.3	793.5	754.9	697.8	680.6
37.5°	752.1	744.9	696.3	650.6	629.1
40°	704.9	696.3	643.4	602.0	579.1
42.5°	660.6	649.1	597.7	553.3	527.6
45°	613.4	600.5	549.0	503.3	483.3
47.5°	566.2	554.8	507.6	460.4	437.5
50°	516.2	506.2	463.3	416.1	391.8
52.5°	474.7	459.0	417.5	370.3	350.3
55°	426.1	413.2	374.6	330.3	313.1
57.5°	381.8	368.9	333.1	291.7	277.4
60°	340.3	321.7	291.7	255.9	244.5
62.5°	294.5	280.2	254.5	224.5	238.8
65°	253.1	238.8	215.9	220.2	183.0
67.5°	207.3	200.2	180.2	160.1	154.4
70°	168.7	160.1	153.0	131.5	125.8
72.5°	134.4	125.8	115.8	104.4	100.1
75°	101.5	94.4	88.6	84.4	92.9
77.5°	70.1	67.2	62.9	58.6	57.2
80°	45.8	44.3	42.9	41.5	40.0
82.5°	27.2	27.2	27.2	27.2	27.2
85°	14.3	15.7	17.2	18.6	20.0
87.5°	8.6	8.6	10.0	11.4	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)