

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: P559049

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559049
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-12-1-LD4-2HI-35-UNV-81-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1548.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

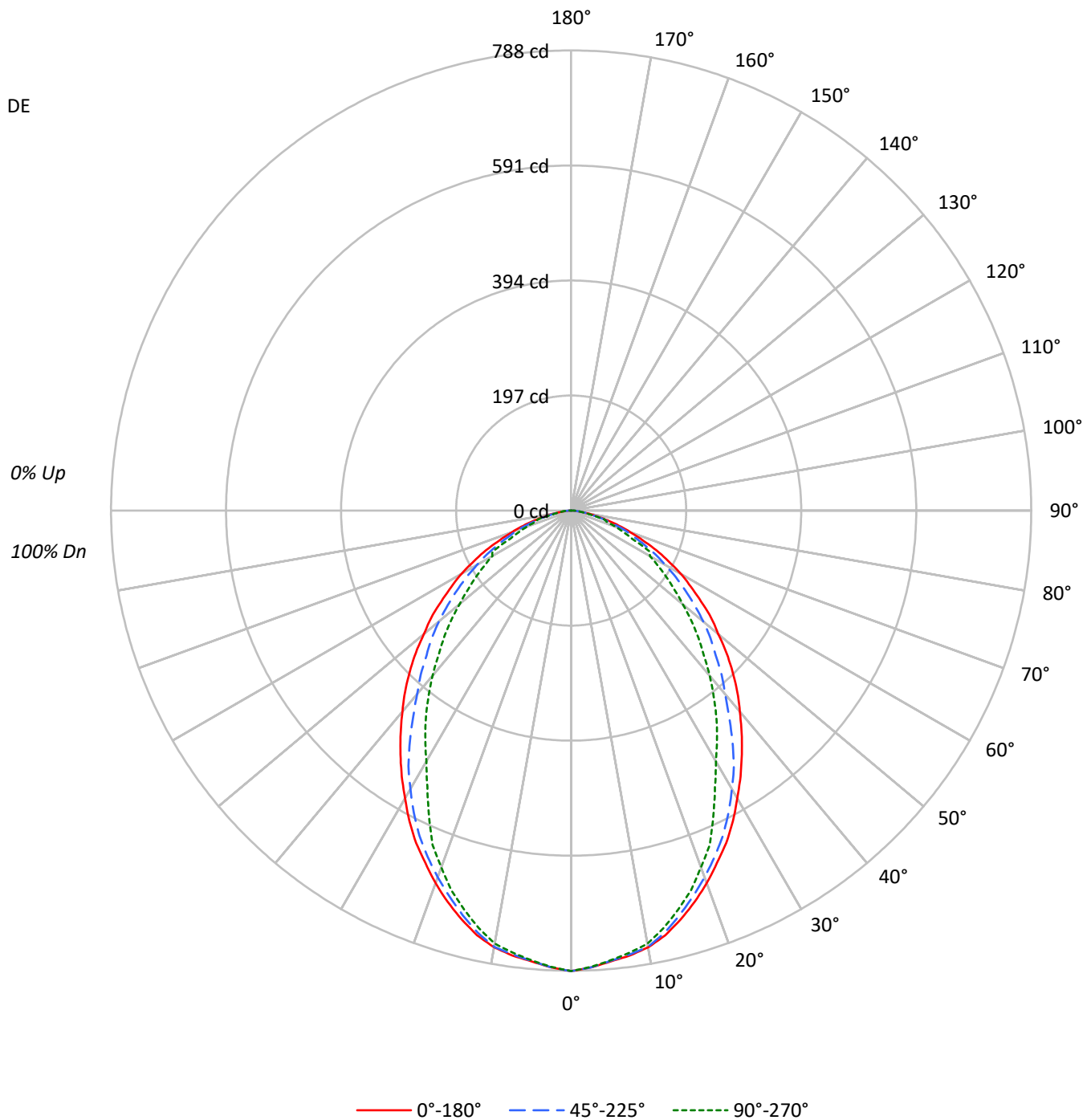
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8487	8487	8487
5°	8373	8362	8352
10°	8300	8289	8230
15°	8076	7994	7883
20°	7779	7654	7446
25°	7460	7297	6842
30°	7070	6843	6164
35°	6696	6324	5702
40°	6315	5764	5188
45°	5954	5329	4690
50°	5511	4947	4183
55°	5099	4481	3746
60°	4672	4004	3356
65°	4111	3507	2972
70°	3386	3068	2524
75°	2691	2350	2466
80°	1810	1692	1581
85°	1124	1346	1581

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5954 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	4.7
10°-20°	201.4	13.0
20°-30°	278.9	18.0
30°-40°	297.4	19.2
40°-50°	271.3	17.5
50°-60°	212.5	13.7
60°-70°	138.5	8.9
70°-80°	61.4	4.0
80°-90°	13.2	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°	553.7	35.8
0°-40°	851.1	55.0
0°-60°	1334.9	86.2
0°-90°	1548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1548.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	775	774	774	773	773	74
15°	725	725	717	710	707	204
25°	628	624	614	592	576	288
35°	510	506	481	445	434	319
45°	391	383	350	321	308	301
55°	272	264	239	211	200	244
65°	161	152	138	140	117	159
75°	65	60	56	54	59	69
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	788.5	788.5	788.5	788.5	788.5
2.5°	783.1	783.1	783.1	782.1	782.1
5°	774.9	773.9	773.9	773.0	773.0
7.5°	768.5	767.6	766.7	765.7	763.9
10°	759.4	759.4	758.4	753.9	753.0
12.5°	744.8	743.9	740.2	733.8	732.0
15°	724.7	724.7	717.4	710.1	707.4
17.5°	702.8	701.9	692.8	685.5	681.9
20°	679.1	677.3	668.2	656.3	650.0
22.5°	652.7	652.7	641.8	626.3	619.9
25°	628.1	624.4	614.4	592.5	576.1
27.5°	599.8	594.4	583.4	552.4	533.3
30°	568.8	566.1	550.6	510.5	495.9
32.5°	539.7	535.1	518.7	476.8	464.9
35°	509.6	505.9	481.3	444.9	433.9
37.5°	479.5	474.9	443.9	414.8	401.1
40°	449.4	443.9	410.2	383.8	369.2
42.5°	421.2	413.9	381.0	352.8	336.4
45°	391.1	382.9	350.1	320.9	308.1
47.5°	361.0	353.7	323.6	293.5	278.9
50°	329.1	322.7	295.4	265.3	249.8
52.5°	302.6	292.6	266.2	236.1	223.3
55°	271.7	263.5	238.8	210.6	199.6
57.5°	243.4	235.2	212.4	186.0	176.8
60°	217.0	205.1	186.0	163.2	155.9
62.5°	187.8	178.7	162.3	143.1	152.2
65°	161.4	152.2	137.7	140.4	116.7
67.5°	132.2	127.6	114.9	102.1	98.5
70°	107.6	102.1	97.5	83.9	80.2
72.5°	85.7	80.2	73.8	66.5	63.8
75°	64.7	60.2	56.5	53.8	59.3
77.5°	44.7	42.8	40.1	37.4	36.5
80°	29.2	28.3	27.3	26.4	25.5
82.5°	17.3	17.3	17.3	17.3	17.3
85°	9.1	10.0	10.9	11.9	12.8
87.5°	5.5	5.5	6.4	7.3	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)