

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: P589925

Luminaire Tested: FSR-24-2-LD4-1HI-50-UNV-82-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1HI-50-UNV-82-84-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2286.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

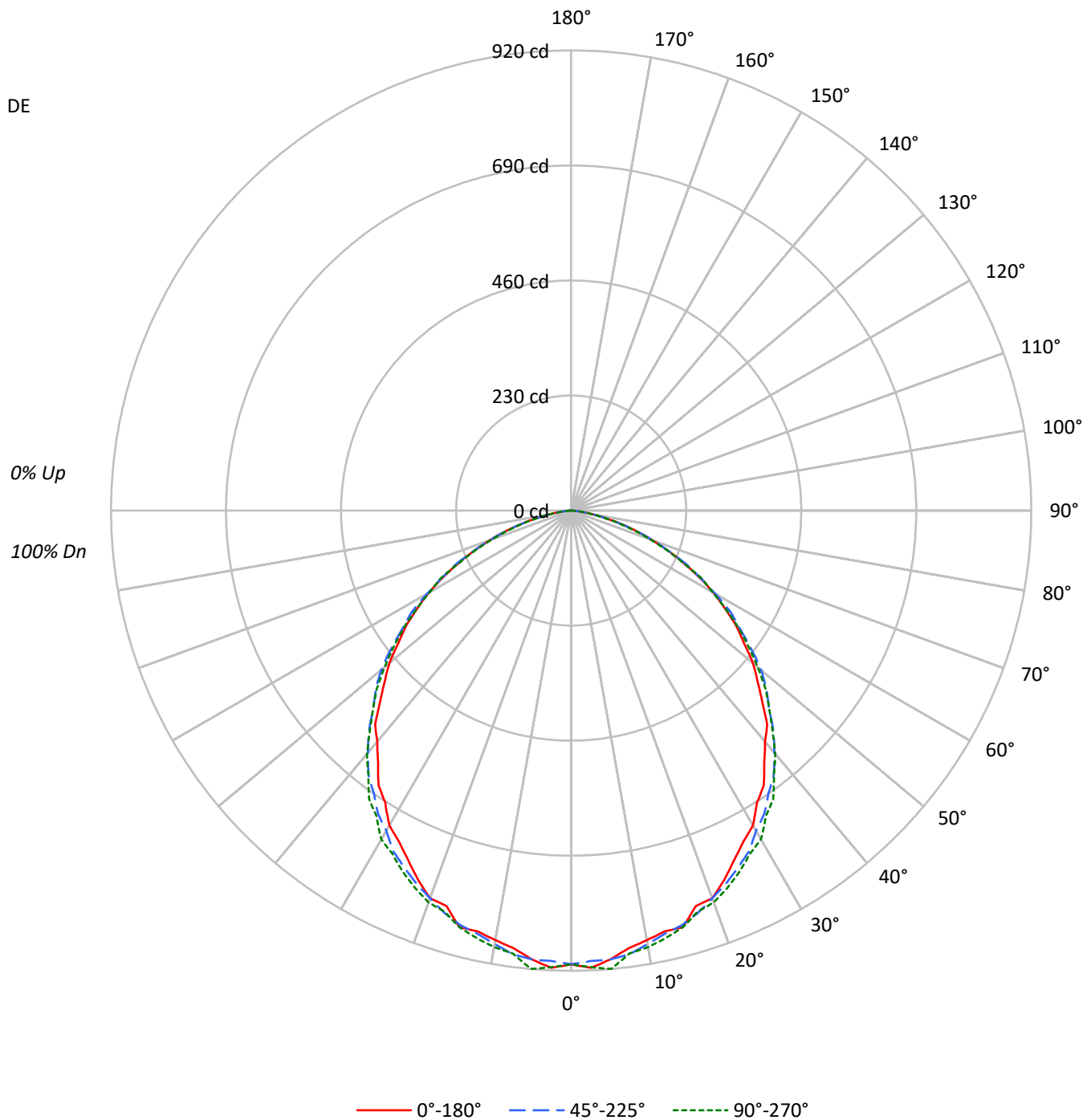
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2441	2441	2441
5°	2433	2434	2485
10°	2383	2404	2421
15°	2402	2389	2403
20°	2362	2362	2387
25°	2289	2339	2365
30°	2258	2297	2358
35°	2204	2262	2313
40°	2119	2221	2231
45°	2055	2128	2131
50°	1987	2077	2037
55°	1894	1930	1917
60°	1771	1788	1756
65°	1578	1619	1568
70°	1355	1359	1321
75°	1073	1070	1029
80°	719	699	671
85°	389	386	361

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2183 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.3	3.7
10°-20°	241.8	10.6
20°-30°	362.3	15.8
30°-40°	429.4	18.8
40°-50°	430.2	18.8
50°-60°	365.1	16.0
60°-70°	246.2	10.8
70°-80°	108.2	4.7
80°-90°	17.6	0.8
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°	689.4	30.2
0°-40°	1118.8	48.9
0°-60°	1914.1	83.7
0°-90°	2286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	901	898	901	898	920	85
15°	862	852	858	862	862	240
25°	771	775	788	798	796	356
35°	671	673	689	704	704	417
45°	540	550	559	574	560	418
55°	404	401	411	409	408	359
65°	248	245	254	244	246	247
75°	103	101	103	96	99	111
85°	13	12	12	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	907.0	907.0	907.0	907.0	907.0
2.5°	914.9	908.0	901.5	909.0	913.6
5°	900.6	898.5	900.9	898.2	919.9
7.5°	882.1	890.2	894.8	891.9	893.2
10°	872.2	869.4	879.9	887.1	886.1
12.5°	861.7	865.9	866.5	874.4	875.1
15°	862.3	852.3	857.6	862.1	862.4
17.5°	828.8	839.6	843.2	853.4	840.7
20°	824.7	816.9	824.7	835.1	833.5
22.5°	799.5	790.7	807.6	816.9	816.3
25°	770.9	775.2	787.8	798.1	796.5
27.5°	745.9	750.8	768.8	783.0	773.9
30°	726.6	724.1	739.3	752.0	759.0
32.5°	692.0	700.9	718.7	731.2	724.6
35°	671.0	673.0	688.6	704.5	704.1
37.5°	634.4	643.6	665.5	670.0	665.9
40°	603.1	612.4	632.2	637.0	635.0
42.5°	580.1	581.7	598.7	604.2	595.4
45°	539.9	550.0	559.1	573.5	559.9
47.5°	505.7	510.4	530.0	533.9	526.8
50°	474.7	476.3	496.1	491.3	486.6
52.5°	435.7	442.6	453.7	452.8	447.2
55°	403.6	400.9	411.4	408.6	408.5
57.5°	365.0	369.7	378.4	373.9	366.8
60°	329.0	329.1	332.2	327.2	326.3
62.5°	288.8	290.2	290.9	284.7	294.8
65°	247.9	244.6	254.2	244.5	246.2
67.5°	210.3	212.0	211.0	204.9	207.3
70°	172.2	174.3	172.7	165.8	167.9
72.5°	137.3	134.7	136.3	127.7	131.6
75°	103.2	101.1	102.9	95.7	99.0
77.5°	70.3	71.9	70.7	66.9	69.1
80°	46.4	45.1	45.1	42.9	43.3
82.5°	27.1	25.8	25.4	24.7	25.8
85°	12.6	12.3	12.5	12.2	11.7
87.5°	4.6	4.7	4.7	4.5	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)