

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: P590101

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590101
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-LD4-1STD-50-UNV-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

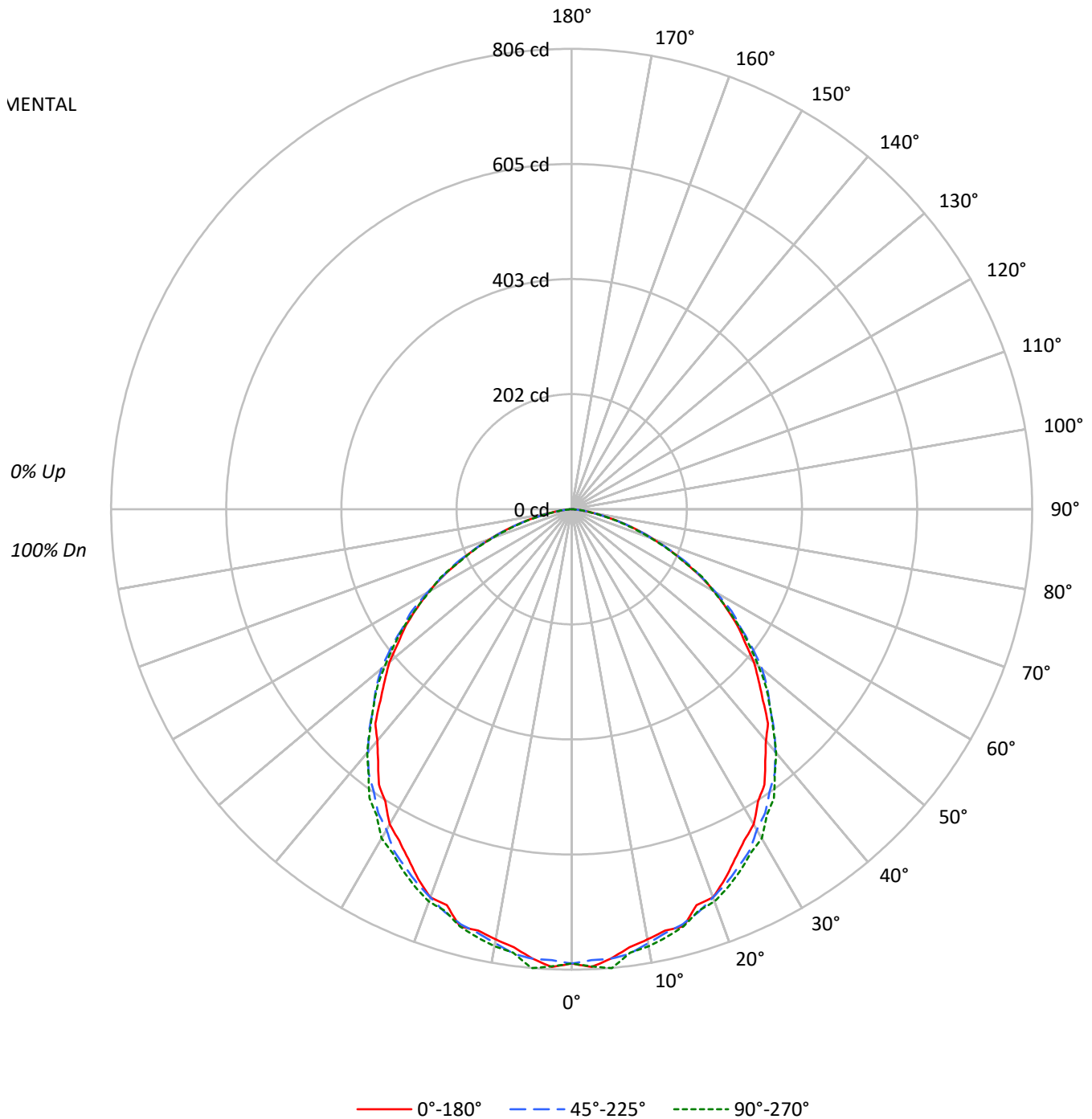
Lumens per Lamp: N/A
Luminaire Lumens: 2004.0 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	2140	2140	2140
5°	2133	2133	2178
10°	2089	2108	2123
15°	2106	2094	2106
20°	2070	2070	2092
25°	2007	2051	2073
30°	1979	2014	2068
35°	1933	1983	2028
40°	1857	1947	1955
45°	1801	1865	1868
50°	1742	1821	1786
55°	1660	1692	1680
60°	1552	1568	1539
65°	1384	1419	1374
70°	1187	1191	1158
75°	940	938	902
80°	631	612	589
85°	343	340	318

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1913 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	3.7
10°-20°	212.0	10.6
20°-30°	317.6	15.8
30°-40°	376.4	18.8
40°-50°	377.1	18.8
50°-60°	320.1	16.0
60°-70°	215.8	10.8
70°-80°	94.8	4.7
80°-90°	15.4	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°	604.4	30.2
0°-40°	980.8	48.9
0°-60°	1677.9	83.7
0°-90°	2004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2004.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	790	788	790	787	806	74
15°	756	747	752	756	756	211
25°	676	680	691	700	698	312
35°	588	590	604	618	617	365
45°	473	482	490	503	491	366
55°	354	351	361	358	358	315
65°	217	214	223	214	216	216
75°	90	89	90	84	87	97
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	795.1	795.1	795.1	795.1	795.1
2.5°	802.0	796.0	790.3	796.9	800.9
5°	789.5	787.6	789.8	787.4	806.4
7.5°	773.3	780.4	784.5	781.9	783.0
10°	764.6	762.2	771.3	777.7	776.8
12.5°	755.4	759.1	759.6	766.5	767.1
15°	755.9	747.2	751.8	755.7	756.0
17.5°	726.6	736.0	739.2	748.1	737.0
20°	723.0	716.1	723.0	732.1	730.7
22.5°	700.9	693.2	708.0	716.1	715.6
25°	675.8	679.5	690.6	699.7	698.2
27.5°	653.9	658.2	674.0	686.4	678.4
30°	636.9	634.8	648.1	659.2	665.4
32.5°	606.6	614.4	630.1	641.0	635.2
35°	588.3	590.0	603.7	617.6	617.2
37.5°	556.1	564.2	583.4	587.3	583.8
40°	528.7	536.8	554.2	558.4	556.6
42.5°	508.5	509.9	524.8	529.6	521.9
45°	473.3	482.1	490.1	502.7	490.8
47.5°	443.3	447.4	464.7	468.0	461.8
50°	416.1	417.5	434.9	430.7	426.6
52.5°	381.9	388.0	397.7	396.9	392.1
55°	353.8	351.4	360.7	358.2	358.1
57.5°	320.0	324.1	331.7	327.8	321.5
60°	288.4	288.5	291.3	286.8	286.0
62.5°	253.2	254.4	255.0	249.6	258.4
65°	217.3	214.5	222.9	214.4	215.8
67.5°	184.4	185.8	185.0	179.7	181.7
70°	150.9	152.8	151.4	145.4	147.2
72.5°	120.3	118.1	119.5	111.9	115.4
75°	90.4	88.6	90.2	83.9	86.8
77.5°	61.6	63.0	62.0	58.6	60.6
80°	40.7	39.5	39.5	37.6	38.0
82.5°	23.7	22.6	22.3	21.7	22.6
85°	11.1	10.8	11.0	10.7	10.3
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)