

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: P563379

Luminaire Tested: FSR-24-4-LD4-3LO-50-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563379
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-24-4-LD4-3LO-50-UNV-80-85-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8801.0 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

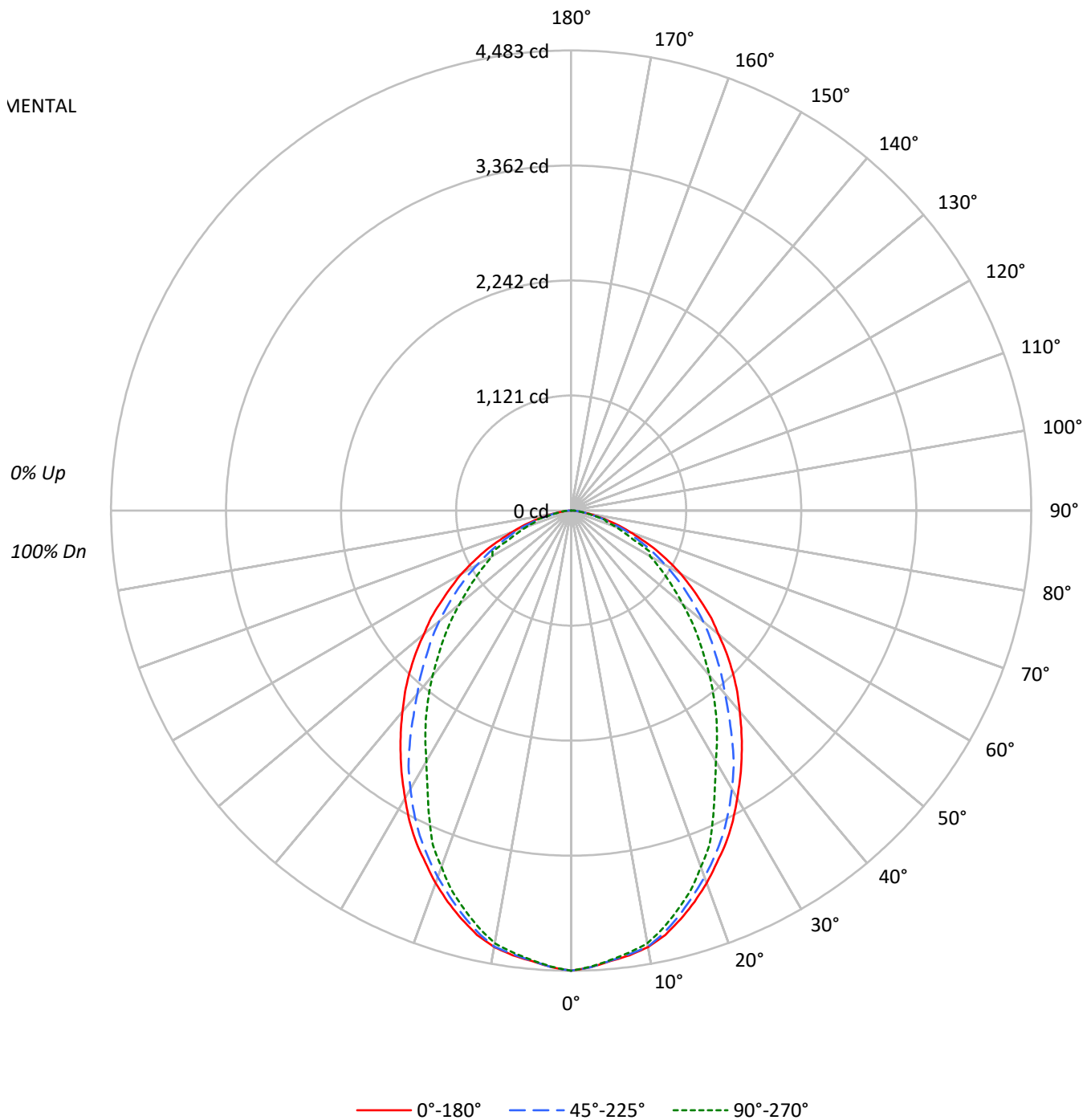
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6032	6032	6032
5°	5950	5943	5936
10°	5898	5891	5849
15°	5739	5682	5602
20°	5529	5440	5291
25°	5301	5186	4863
30°	5025	4864	4380
35°	4759	4495	4052
40°	4488	4096	3687
45°	4231	3787	3333
50°	3916	3515	2973
55°	3623	3185	2662
60°	3319	2845	2385
65°	2921	2492	2112
70°	2406	2182	1794
75°	1913	1670	1751
80°	1285	1205	1124
85°	800	960	1121

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4231 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.3	4.7
10°-20°	1145.3	13.0
20°-30°	1585.6	18.0
30°-40°	1690.7	19.2
40°-50°	1542.4	17.5
50°-60°	1208.4	13.7
60°-70°	787.5	8.9
70°-80°	348.9	4.0
80°-90°	74.9	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°	3148.2	35.8
0°-40°	4838.9	55.0
0°-60°	7589.6	86.2
0°-90°	8801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8801.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4483	4483	4483	4483	4483	
5°	4405	4400	4400	4395	4395	418
15°	4120	4120	4079	4037	4022	1158
25°	3571	3550	3493	3369	3276	1639
35°	2897	2876	2736	2529	2467	1811
45°	2223	2177	1990	1824	1752	1713
55°	1544	1498	1358	1197	1135	1385
65°	917	866	783	798	663	904
75°	368	342	321	306	337	394
85°	52	57	62	67	73	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4483.1	4483.1	4483.1	4483.1	4483.1
2.5°	4452.0	4452.0	4452.0	4446.8	4446.8
5°	4405.4	4400.2	4400.2	4395.0	4395.0
7.5°	4369.1	4363.9	4358.7	4353.5	4343.2
10°	4317.3	4317.3	4312.1	4286.2	4281.0
12.5°	4234.3	4229.2	4208.4	4172.1	4161.8
15°	4120.3	4120.3	4078.9	4037.4	4021.8
17.5°	3995.9	3990.7	3938.9	3897.5	3876.7
20°	3861.2	3850.8	3799.0	3731.6	3695.3
22.5°	3710.9	3710.9	3648.7	3560.6	3524.3
25°	3570.9	3550.2	3493.2	3368.8	3275.5
27.5°	3410.3	3379.2	3317.0	3140.8	3031.9
30°	3234.1	3218.5	3130.4	2902.4	2819.4
32.5°	3068.2	3042.3	2949.0	2710.6	2643.2
35°	2897.2	2876.4	2736.5	2529.2	2467.0
37.5°	2726.1	2700.2	2524.0	2358.2	2280.4
40°	2555.1	2524.0	2332.3	2182.0	2099.0
42.5°	2394.4	2353.0	2166.4	2005.7	1912.4
45°	2223.4	2176.8	1990.2	1824.3	1751.8
47.5°	2052.4	2010.9	1839.9	1668.9	1585.9
50°	1871.0	1834.7	1679.2	1508.2	1420.1
52.5°	1720.7	1663.7	1513.4	1342.3	1269.8
55°	1544.5	1497.8	1357.9	1197.2	1135.0
57.5°	1383.8	1337.2	1207.6	1057.3	1005.5
60°	1233.5	1166.1	1057.3	927.7	886.3
62.5°	1067.7	1015.8	922.5	813.7	865.5
65°	917.4	865.5	782.6	798.1	663.4
67.5°	751.5	725.6	653.0	580.5	559.7
70°	611.6	580.5	554.6	476.8	456.1
72.5°	487.2	456.1	419.8	378.3	362.8
75°	368.0	342.1	321.3	305.8	336.9
77.5°	254.0	243.6	228.0	212.5	207.3
80°	165.8	160.7	155.5	150.3	145.1
82.5°	98.5	98.5	98.5	98.5	98.5
85°	51.8	57.0	62.2	67.4	72.6
87.5°	31.1	31.1	36.3	41.5	46.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)