

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: P561906

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561906
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-24-2-LD4-1LO-35-UNV-80-85-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2390.0 lumens
Efficiency: N/A
Efficacy: 102.1 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

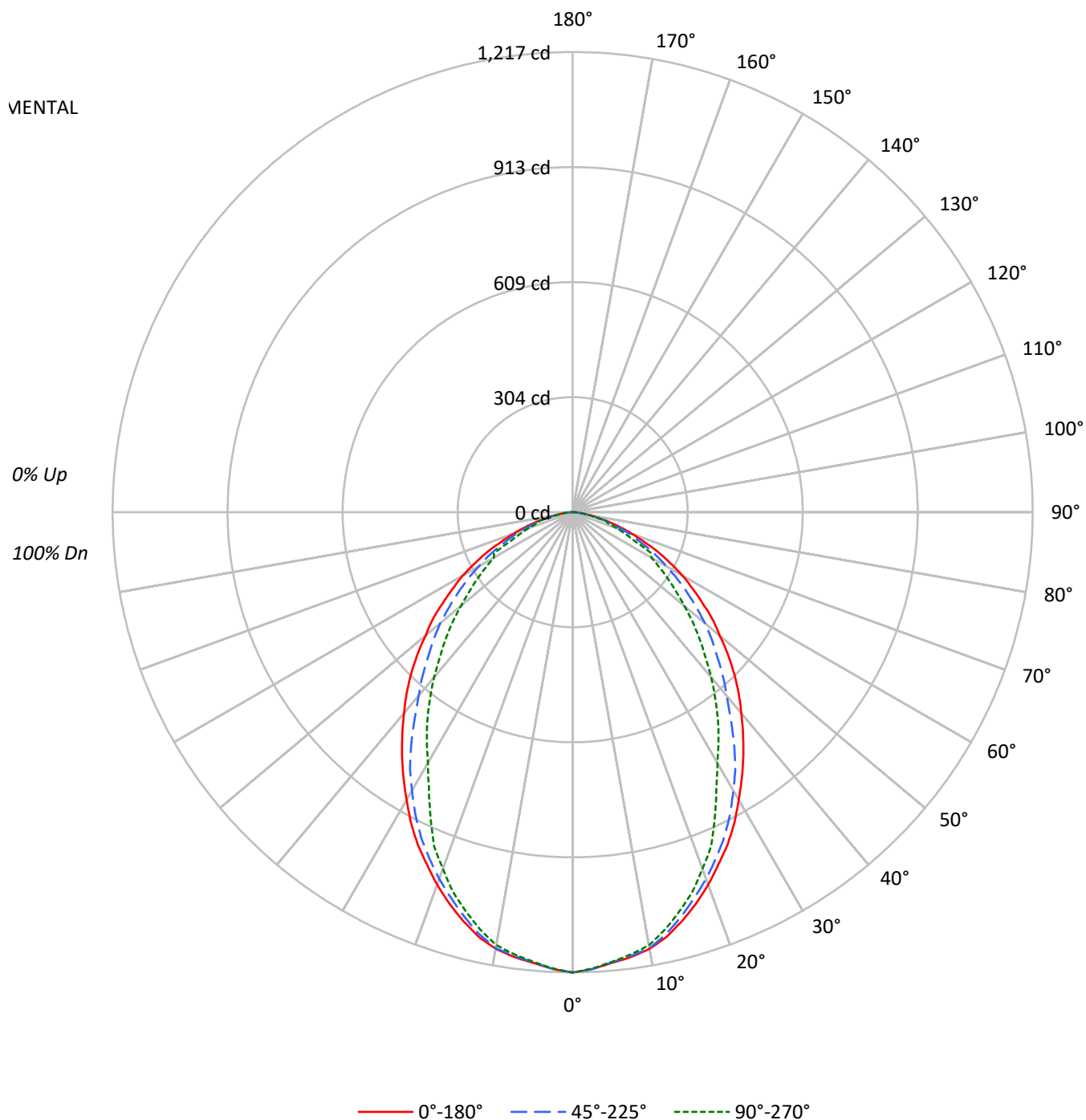
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	106	102	99		108	104	100	97		100	97	94		96	94	91		92	90	89
2	101	94	88	83		99	92	87	82		89	84	80		86	82	78		83	79	77
3	93	84	77	71		91	82	76	70		79	74	69		77	72	68		74	70	67
4	86	75	67	61		84	74	66	61		72	65	60		69	64	59		67	62	58
5	80	68	60	54		78	67	59	53		65	58	53		63	57	52		61	56	52
6	74	62	53	48		72	61	53	47		59	52	47		57	51	47		56	50	46
7	69	56	48	43		67	56	48	42		54	47	42		53	46	42		51	46	42
8	65	52	44	38		63	51	44	38		50	43	38		49	42	38		48	42	38
9	61	48	40	35		59	47	40	35		46	39	35		45	39	34		44	38	34
10	57	44	37	32		56	44	37	32		43	36	32		42	36	32		41	36	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1638	1638	1638
5°	1616	1614	1612
10°	1602	1600	1588
15°	1559	1543	1521
20°	1501	1477	1437
25°	1440	1408	1321
30°	1364	1321	1189
35°	1292	1221	1100
40°	1219	1112	1001
45°	1149	1028	905
50°	1064	955	807
55°	984	865	723
60°	901	773	648
65°	793	677	574
70°	653	592	487
75°	519	454	476
80°	349	327	305
85°	218	261	304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1149 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.3	4.7
10°-20°	311.0	13.0
20°-30°	430.6	18.0
30°-40°	459.1	19.2
40°-50°	418.9	17.5
50°-60°	328.1	13.7
60°-70°	213.9	8.9
70°-80°	94.7	4.0
80°-90°	20.3	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°	854.9	35.8
0°-40°	1314.0	55.0
0°-60°	2061.0	86.2
0°-90°	2390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2390.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1196	1195	1195	1194	1194	114
15°	1119	1119	1108	1096	1092	315
25°	970	964	949	915	890	445
35°	787	781	743	687	670	492
45°	604	591	540	495	476	465
55°	419	407	369	325	308	376
65°	249	235	212	217	180	246
75°	100	93	87	83	92	107
85°	14	16	17	18	20	20
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1217.4	1217.4	1217.4	1217.4	1217.4
2.5°	1209.0	1209.0	1209.0	1207.6	1207.6
5°	1196.3	1194.9	1194.9	1193.5	1193.5
7.5°	1186.5	1185.1	1183.7	1182.2	1179.4
10°	1172.4	1172.4	1171.0	1164.0	1162.5
12.5°	1149.9	1148.5	1142.8	1133.0	1130.2
15°	1118.9	1118.9	1107.7	1096.4	1092.2
17.5°	1085.1	1083.7	1069.7	1058.4	1052.8
20°	1048.5	1045.7	1031.7	1013.4	1003.5
22.5°	1007.7	1007.7	990.8	966.9	957.1
25°	969.7	964.1	948.6	914.8	889.5
27.5°	926.1	917.6	900.8	852.9	823.4
30°	878.2	874.0	850.1	788.2	765.6
32.5°	833.2	826.2	800.8	736.1	717.8
35°	786.8	781.1	743.1	686.8	669.9
37.5°	740.3	733.3	685.4	640.4	619.3
40°	693.9	685.4	633.3	592.5	570.0
42.5°	650.2	639.0	588.3	544.7	519.3
45°	603.8	591.1	540.5	495.4	475.7
47.5°	557.3	546.1	499.6	453.2	430.7
50°	508.1	498.2	456.0	409.6	385.6
52.5°	467.3	451.8	411.0	364.5	344.8
55°	419.4	406.7	368.7	325.1	308.2
57.5°	375.8	363.1	327.9	287.1	273.0
60°	335.0	316.7	287.1	251.9	240.7
62.5°	289.9	275.9	250.5	221.0	235.0
65°	249.1	235.0	212.5	216.7	180.2
67.5°	204.1	197.0	177.3	157.6	152.0
70°	166.1	157.6	150.6	129.5	123.9
72.5°	132.3	123.9	114.0	102.7	98.5
75°	99.9	92.9	87.3	83.0	91.5
77.5°	69.0	66.1	61.9	57.7	56.3
80°	45.0	43.6	42.2	40.8	39.4
82.5°	26.7	26.7	26.7	26.7	26.7
85°	14.1	15.5	16.9	18.3	19.7
87.5°	8.4	8.4	9.9	11.3	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)