

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P312621

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-RDP-CA125-W2A-U-3500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P312621
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-24HE-UNV-L83050-RDP-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1464.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

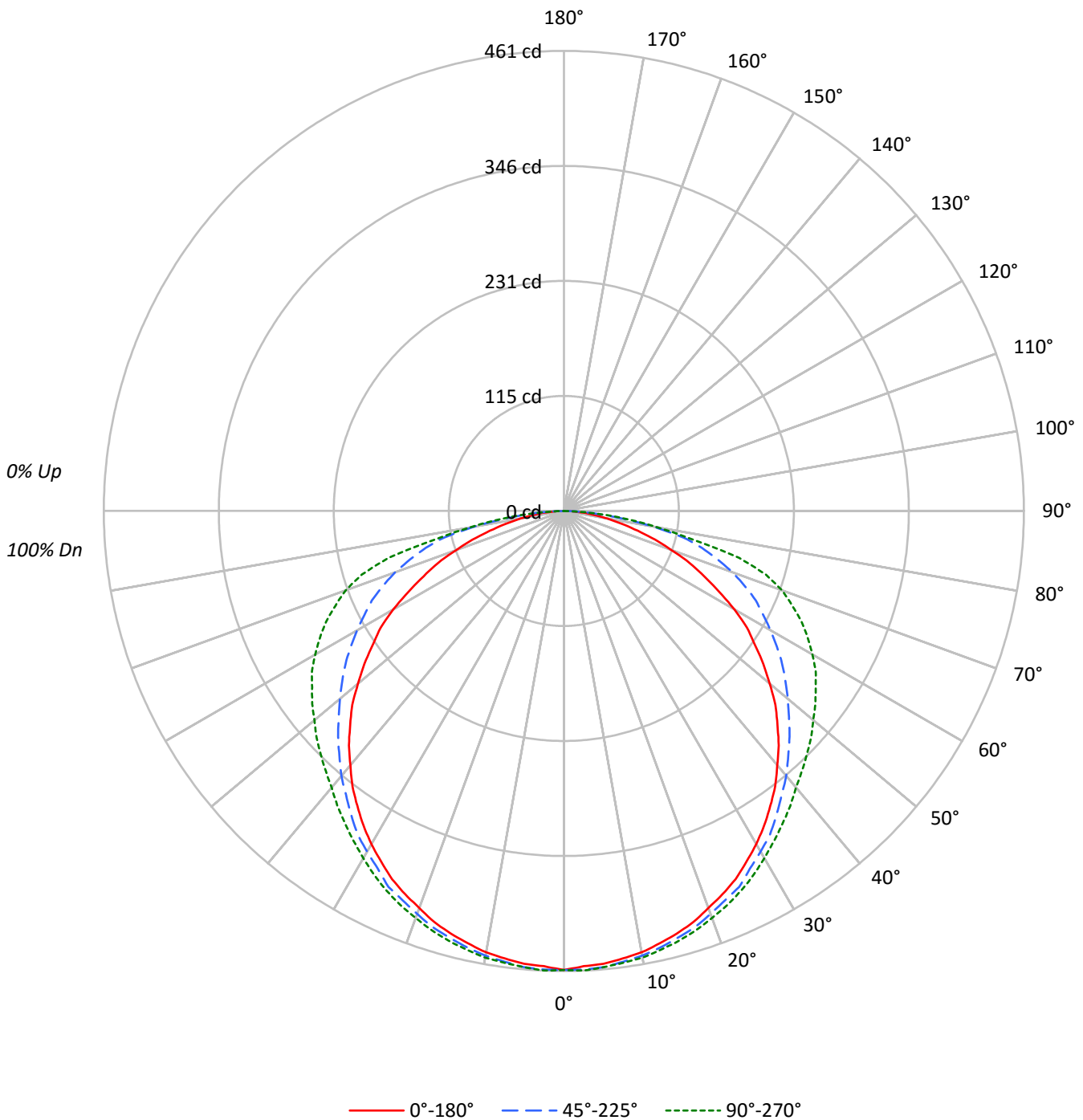
Input Watts (W): 18.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1238	1238	1238
5°	1231	1239	1239
10°	1227	1236	1242
15°	1221	1233	1242
20°	1212	1231	1243
25°	1209	1234	1247
30°	1198	1225	1248
35°	1185	1221	1256
40°	1169	1218	1271
45°	1152	1217	1311
50°	1127	1226	1366
55°	1096	1253	1445
60°	1061	1287	1548
65°	988	1351	1673
70°	906	1415	1830
75°	795	1489	1892
80°	685	1418	1486
85°	599	1031	1130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	3.0
10°-20°	124.9	8.5
20°-30°	190.6	13.0
30°-40°	232.7	15.9
40°-50°	248.8	17.0
50°-60°	240.1	16.4
60°-70°	206.7	14.1
70°-80°	139.9	9.6
80°-90°	36.9	2.5
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°	359.0	24.5
0°-40°	591.6	40.4
0°-60°	1080.5	73.8
0°-90°	1464.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1464.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	456	457	459	459	459	43
15°	438	439	443	445	446	124
25°	407	409	416	418	420	187
35°	361	364	372	379	382	226
45°	303	308	320	336	345	234
55°	234	241	267	294	308	209
65°	155	170	212	246	263	154
75°	76	101	143	172	182	82
85°	19	27	33	34	37	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.9	459.9	459.9	459.9	459.9
2.5°	456.6	457.7	459.9	459.9	460.9
5°	455.6	456.6	458.8	458.8	458.8
7.5°	452.3	453.4	455.6	456.6	456.6
10°	449.1	450.2	452.3	453.4	454.5
12.5°	443.7	444.8	448.0	450.2	450.2
15°	438.3	439.4	442.6	444.8	445.9
17.5°	431.9	434.0	437.3	439.4	440.5
20°	423.3	425.4	429.7	432.9	434.0
22.5°	415.7	417.9	422.2	425.4	427.6
25°	407.1	409.3	415.7	417.9	420.0
27.5°	396.3	398.5	403.9	408.2	411.4
30°	385.6	387.7	394.2	399.6	401.7
32.5°	373.7	376.9	384.5	388.8	392.0
35°	360.8	364.0	371.6	379.1	382.3
37.5°	347.9	351.1	358.6	368.3	372.6
40°	332.8	337.1	346.8	359.7	361.9
42.5°	318.8	324.2	332.8	347.9	353.2
45°	302.6	308.0	319.9	336.0	344.6
47.5°	287.6	292.9	305.9	325.2	336.0
50°	269.2	276.8	292.9	315.6	326.3
52.5°	252.0	258.5	280.0	304.8	317.7
55°	233.7	241.2	267.1	294.0	308.0
57.5°	217.5	224.0	253.1	283.2	299.4
60°	197.1	205.7	239.1	271.4	287.6
62.5°	175.5	188.5	225.1	258.5	275.7
65°	155.1	170.2	212.2	245.6	262.8
67.5°	136.8	152.9	196.0	231.5	247.7
70°	115.2	135.7	179.9	214.3	232.6
72.5°	95.9	118.5	161.5	196.0	212.2
75°	76.5	101.2	143.2	172.3	182.0
77.5°	59.2	82.9	122.8	131.4	132.5
80°	44.2	65.7	91.5	92.6	95.9
82.5°	30.2	46.3	59.2	64.6	65.7
85°	19.4	26.9	33.4	34.5	36.6
87.5°	8.6	9.7	11.8	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)