

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: P311876

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CP125-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: P311876
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L83050-HRP-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 1737.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

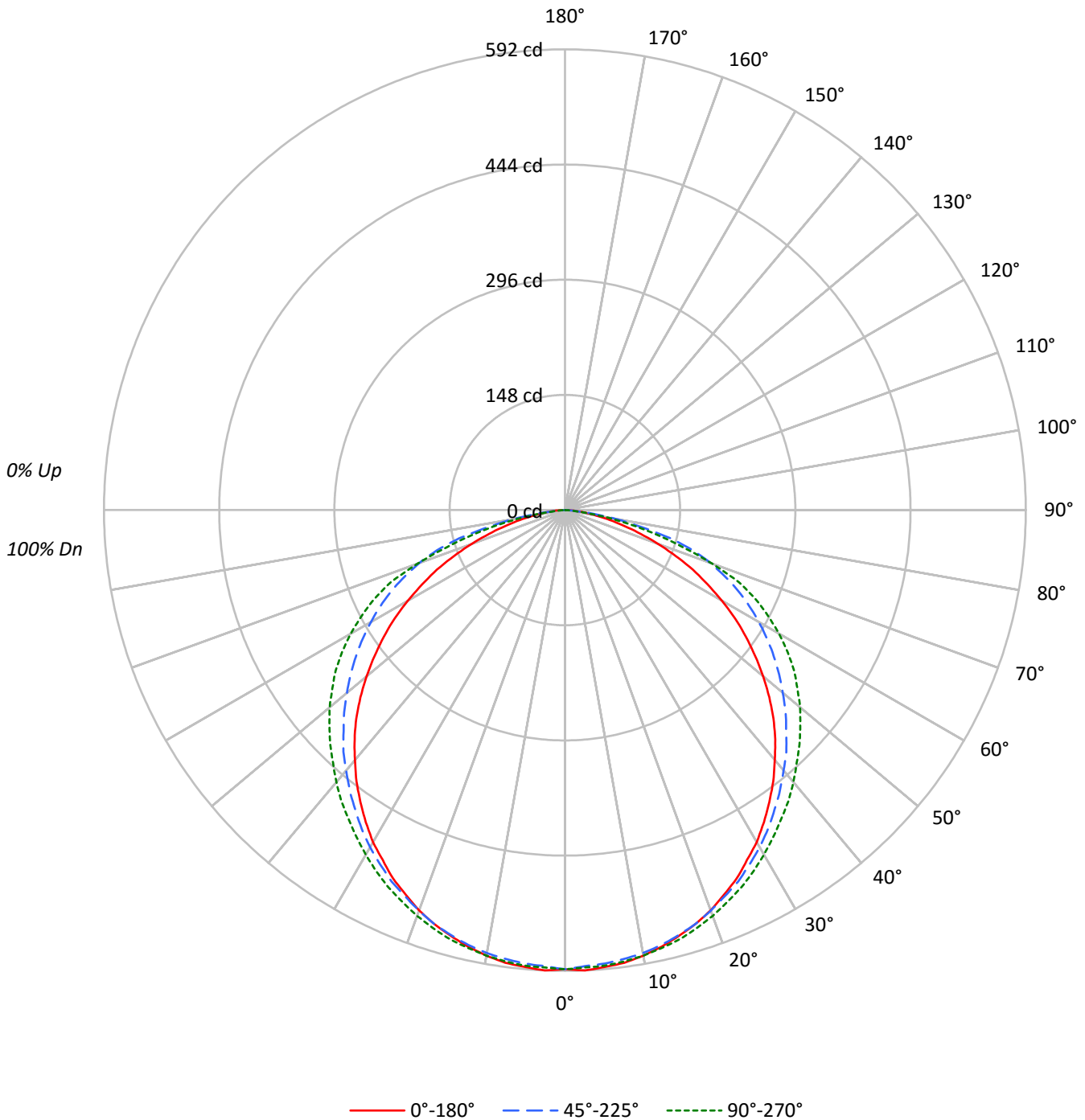
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1587	1587	1587
5°	1592	1580	1588
10°	1588	1579	1588
15°	1578	1575	1590
20°	1567	1569	1589
25°	1550	1563	1589
30°	1531	1555	1588
35°	1504	1543	1592
40°	1474	1535	1604
45°	1443	1530	1621
50°	1392	1530	1651
55°	1332	1537	1686
60°	1252	1549	1708
65°	1154	1565	1718
70°	1006	1569	1581
75°	829	1460	1278
80°	652	1049	855
85°	506	404	204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.8	3.2
10°-20°	160.2	9.2
20°-30°	243.4	14.0
30°-40°	294.9	17.0
40°-50°	310.7	17.9
50°-60°	290.1	16.7
60°-70°	231.8	13.3
70°-80°	127.6	7.3
80°-90°	22.5	1.3
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°	459.5	26.5
0°-40°	754.3	43.4
0°-60°	1355.1	78.0
0°-90°	1737.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1737.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	589	588	585	589	588	56
15°	566	566	565	571	571	160
25°	522	523	526	534	535	240
35°	458	462	470	482	484	286
45°	379	386	402	420	426	292
55°	284	298	328	351	359	254
65°	181	204	246	266	270	179
75°	80	114	140	126	123	86
85°	16	21	13	8	7	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	589.9	589.9	589.9	589.9	589.9
2.5°	592.1	590.4	586.6	589.9	588.3
5°	589.3	587.7	585.0	588.8	587.7
7.5°	586.6	584.4	581.7	586.1	585.0
10°	581.2	579.5	577.9	581.7	581.2
12.5°	574.6	574.1	572.4	576.8	576.2
15°	566.4	566.4	565.3	570.8	570.8
17.5°	557.7	557.1	557.7	563.7	563.1
20°	547.3	547.3	547.8	554.9	554.9
22.5°	534.7	535.3	536.9	545.7	545.1
25°	522.2	523.3	526.5	534.2	535.3
27.5°	506.9	509.6	513.4	522.7	523.8
30°	492.7	494.3	500.3	509.1	511.2
32.5°	475.7	479.0	485.6	495.4	498.1
35°	457.7	462.1	469.7	481.7	484.5
37.5°	439.7	443.5	453.9	466.5	471.4
40°	419.5	426.0	437.0	451.2	456.6
42.5°	399.8	406.4	421.1	435.9	440.8
45°	379.1	386.2	402.0	420.0	426.0
47.5°	356.1	364.3	384.5	403.6	410.2
50°	332.6	343.0	365.4	386.7	394.4
52.5°	308.1	321.2	346.8	369.2	376.3
55°	284.0	298.2	327.7	350.7	359.4
57.5°	259.4	274.7	308.1	334.3	339.2
60°	232.7	251.3	287.8	310.8	317.3
62.5°	206.5	227.8	267.1	288.9	294.4
65°	181.3	204.3	245.8	266.0	269.8
67.5°	154.0	181.3	222.3	240.9	242.0
70°	127.8	159.5	199.4	208.1	201.0
72.5°	102.1	136.0	172.6	165.5	159.5
75°	79.7	114.2	140.4	126.2	122.9
77.5°	59.0	93.4	100.5	92.9	86.8
80°	42.1	73.7	67.7	57.9	55.2
82.5°	28.9	46.4	37.1	28.9	25.1
85°	16.4	20.8	13.1	8.2	6.6
87.5°	7.1	4.9	2.7	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)