

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: P307059

Luminaire Tested: **14FCZ2-25-UNV-L82765-HRP-CP187-W2A-U-5700K**

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: P307059
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-L82765-HRP-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5700K 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: 1735.0 lumens
Efficiency: N/A
Efficacy: 85.9 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

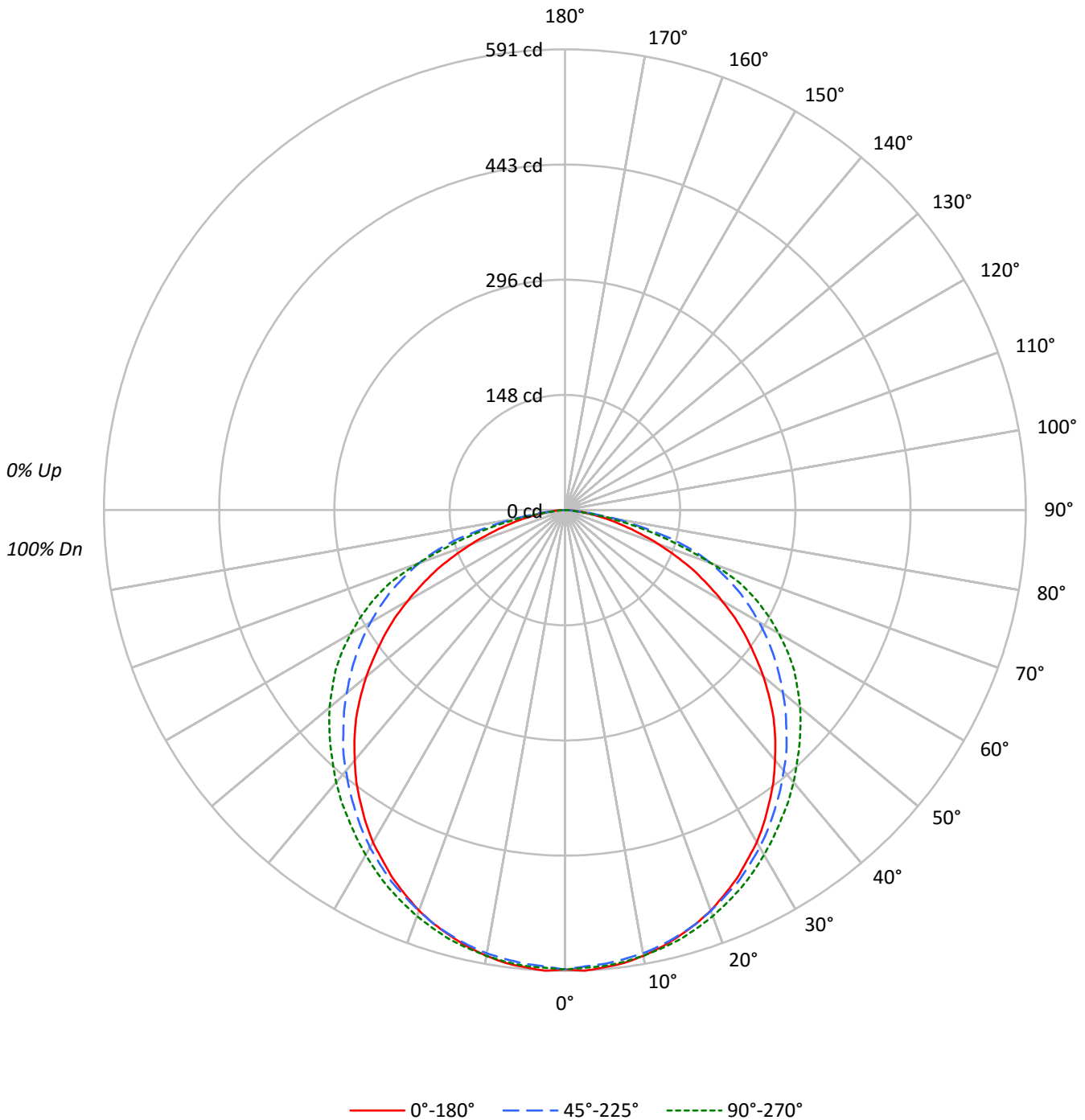
Input Watts (W): 20.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1586	1586	1586
5°	1590	1578	1586
10°	1586	1577	1586
15°	1576	1573	1588
20°	1566	1567	1587
25°	1549	1561	1588
30°	1529	1553	1587
35°	1502	1541	1590
40°	1472	1533	1602
45°	1441	1528	1619
50°	1391	1528	1649
55°	1331	1536	1684
60°	1251	1547	1706
65°	1153	1563	1716
70°	1005	1566	1580
75°	829	1458	1277
80°	651	1049	854
85°	506	404	201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.8	3.2
10°-20°	160.1	9.2
20°-30°	243.1	14.0
30°-40°	294.5	17.0
40°-50°	310.4	17.9
50°-60°	289.7	16.7
60°-70°	231.5	13.3
70°-80°	127.4	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°	458.9	26.5
0°-40°	753.5	43.4
0°-60°	1353.5	78.0
0°-90°	1735.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1735.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	589	587	584	588	587	56
15°	566	566	565	570	570	160
25°	522	523	526	534	535	240
35°	457	462	469	481	484	286
45°	379	386	402	420	426	291
55°	284	298	327	350	359	253
65°	181	204	246	266	270	178
75°	80	114	140	126	123	86
85°	16	21	13	8	6	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	589.2	589.2	589.2	589.2	589.2
2.5°	591.4	589.8	585.9	589.2	587.6
5°	588.7	587.0	584.3	588.1	587.0
7.5°	585.9	583.8	581.0	585.4	584.3
10°	580.5	578.8	577.2	581.0	580.5
12.5°	573.9	573.4	571.8	576.1	575.6
15°	565.8	565.8	564.7	570.1	570.1
17.5°	557.0	556.5	557.0	563.0	562.5
20°	546.7	546.7	547.2	554.3	554.3
22.5°	534.1	534.7	536.3	545.0	544.5
25°	521.6	522.7	525.9	533.6	534.7
27.5°	506.3	509.0	512.8	522.1	523.2
30°	492.1	493.7	499.7	508.5	510.7
32.5°	475.2	478.5	485.0	494.8	497.6
35°	457.2	461.6	469.2	481.2	483.9
37.5°	439.2	443.0	453.4	465.9	470.8
40°	419.0	425.5	436.5	450.6	456.1
42.5°	399.4	405.9	420.6	435.4	440.3
45°	378.6	385.7	401.5	419.5	425.5
47.5°	355.7	363.9	384.1	403.2	409.7
50°	332.3	342.6	365.0	386.3	393.9
52.5°	307.7	320.8	346.4	368.8	375.9
55°	283.7	297.9	327.3	350.3	359.0
57.5°	259.1	274.4	307.7	333.9	338.8
60°	232.4	251.0	287.5	310.4	317.0
62.5°	206.2	227.5	266.8	288.6	294.1
65°	181.1	204.0	245.5	265.7	269.5
67.5°	153.9	181.1	222.0	240.6	241.7
70°	127.7	159.3	199.1	207.9	200.8
72.5°	102.0	135.8	172.4	165.3	159.3
75°	79.7	114.0	140.2	126.0	122.8
77.5°	58.9	93.3	100.4	92.7	86.7
80°	42.0	73.7	67.7	57.8	55.1
82.5°	28.9	46.4	37.1	28.9	25.1
85°	16.4	20.7	13.1	8.2	6.5
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)