

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: P307028

Luminaire Tested: **14FCZ2-25-UNV-L82765-HRP-CA08-W2A-U-4000K**

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: P307028
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-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1775.0 lumens
Efficiency: N/A
Efficacy: 89.6 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

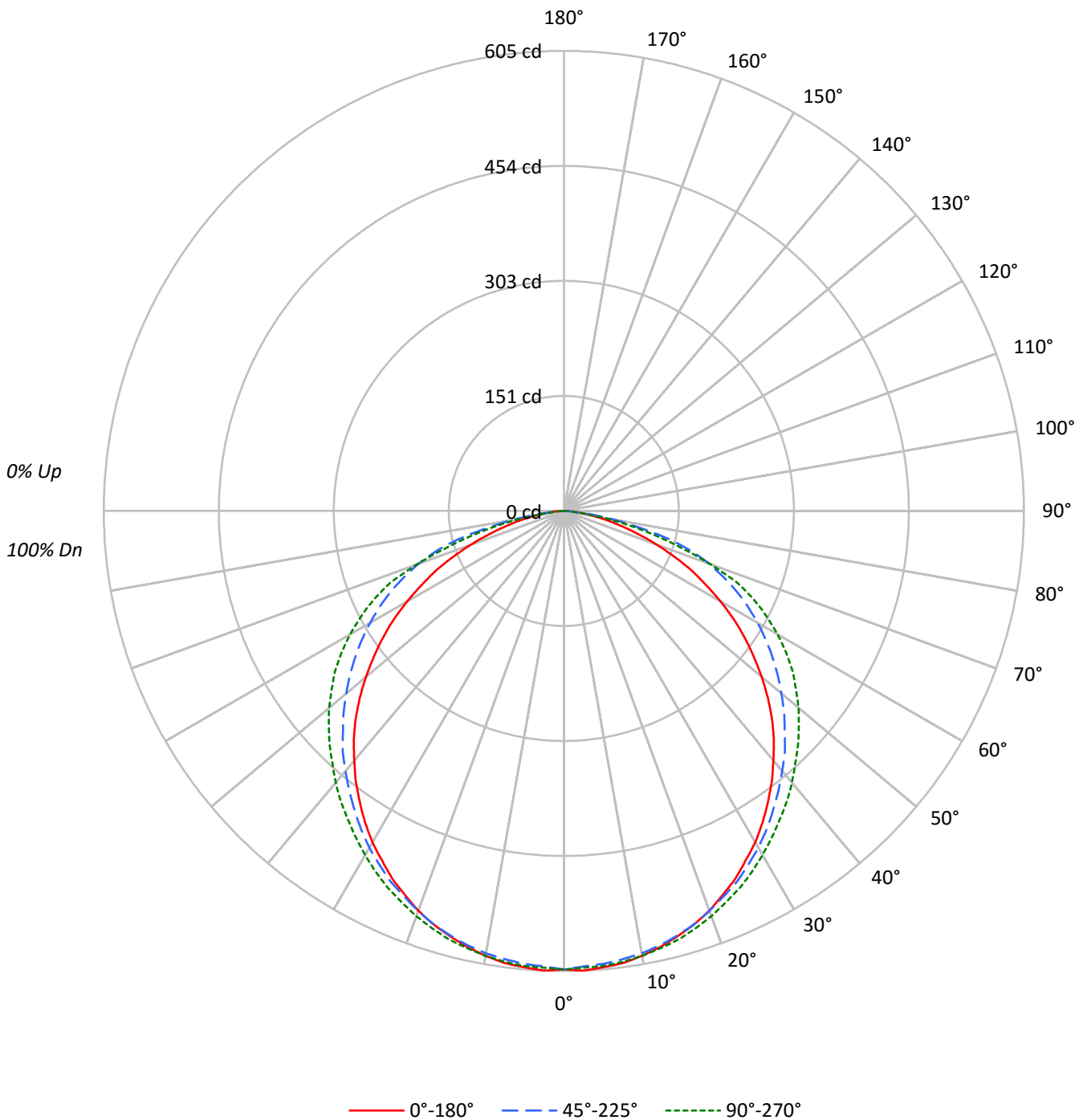
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1622	1622	1622
5°	1627	1615	1622
10°	1623	1614	1623
15°	1612	1609	1625
20°	1602	1603	1624
25°	1584	1598	1624
30°	1564	1589	1623
35°	1536	1577	1626
40°	1506	1568	1639
45°	1474	1563	1657
50°	1423	1563	1687
55°	1361	1571	1723
60°	1280	1583	1745
65°	1180	1599	1755
70°	1028	1603	1616
75°	847	1491	1306
80°	666	1072	874
85°	516	414	207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	3.2
10°-20°	163.8	9.2
20°-30°	248.7	14.0
30°-40°	301.3	17.0
40°-50°	317.5	17.9
50°-60°	296.4	16.7
60°-70°	236.9	13.3
70°-80°	130.3	7.3
80°-90°	23.0	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°	469.5	26.5
0°-40°	770.8	43.4
0°-60°	1384.8	78.0
0°-90°	1775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	603	603	603	603	603	
5°	602	601	598	602	601	57
15°	579	579	578	583	583	163
25°	534	535	538	546	547	246
35°	468	472	480	492	495	293
45°	387	395	411	429	435	298
55°	290	305	335	358	367	259
65°	185	209	251	272	276	182
75°	82	117	143	129	126	88
85°	17	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°	602.8	602.8	602.8	602.8	602.8
2.5°	605.0	603.4	599.5	602.8	601.1
5°	602.2	600.6	597.8	601.7	600.6
7.5°	599.5	597.2	594.4	598.9	597.8
10°	593.9	592.2	590.5	594.4	593.9
12.5°	587.2	586.6	584.9	589.4	588.8
15°	578.8	578.8	577.7	583.3	583.3
17.5°	569.9	569.3	569.9	576.0	575.4
20°	559.3	559.3	559.8	567.1	567.1
22.5°	546.4	547.0	548.7	557.6	557.0
25°	533.6	534.7	538.1	545.9	547.0
27.5°	518.0	520.8	524.7	534.1	535.3
30°	503.4	505.1	511.3	520.2	522.4
32.5°	486.1	489.5	496.2	506.2	509.0
35°	467.7	472.2	480.0	492.3	495.1
37.5°	449.3	453.2	463.8	476.7	481.7
40°	428.7	435.4	446.5	461.0	466.6
42.5°	408.6	415.3	430.3	445.4	450.4
45°	387.4	394.6	410.8	429.2	435.4
47.5°	363.9	372.3	392.9	412.5	419.2
50°	339.9	350.5	373.4	395.2	403.0
52.5°	314.8	328.2	354.4	377.3	384.6
55°	290.2	304.7	334.9	358.3	367.3
57.5°	265.1	280.7	314.8	341.6	346.6
60°	237.8	256.7	294.1	317.6	324.3
62.5°	211.0	232.7	272.9	295.3	300.8
65°	185.3	208.7	251.2	271.8	275.7
67.5°	157.4	185.3	227.2	246.1	247.3
70°	130.6	163.0	203.7	212.7	205.4
72.5°	104.4	139.0	176.4	169.1	163.0
75°	81.5	116.7	143.4	128.9	125.6
77.5°	60.3	95.4	102.7	94.9	88.7
80°	43.0	75.3	69.2	59.2	56.4
82.5°	29.6	47.4	38.0	29.6	25.7
85°	16.7	21.2	13.4	8.4	6.7
87.5°	7.3	5.0	2.8	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)