

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: P307072

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CA08-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: P307072
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: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" 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: 2075.0 lumens
Efficiency: N/A
Efficacy: 86.8 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

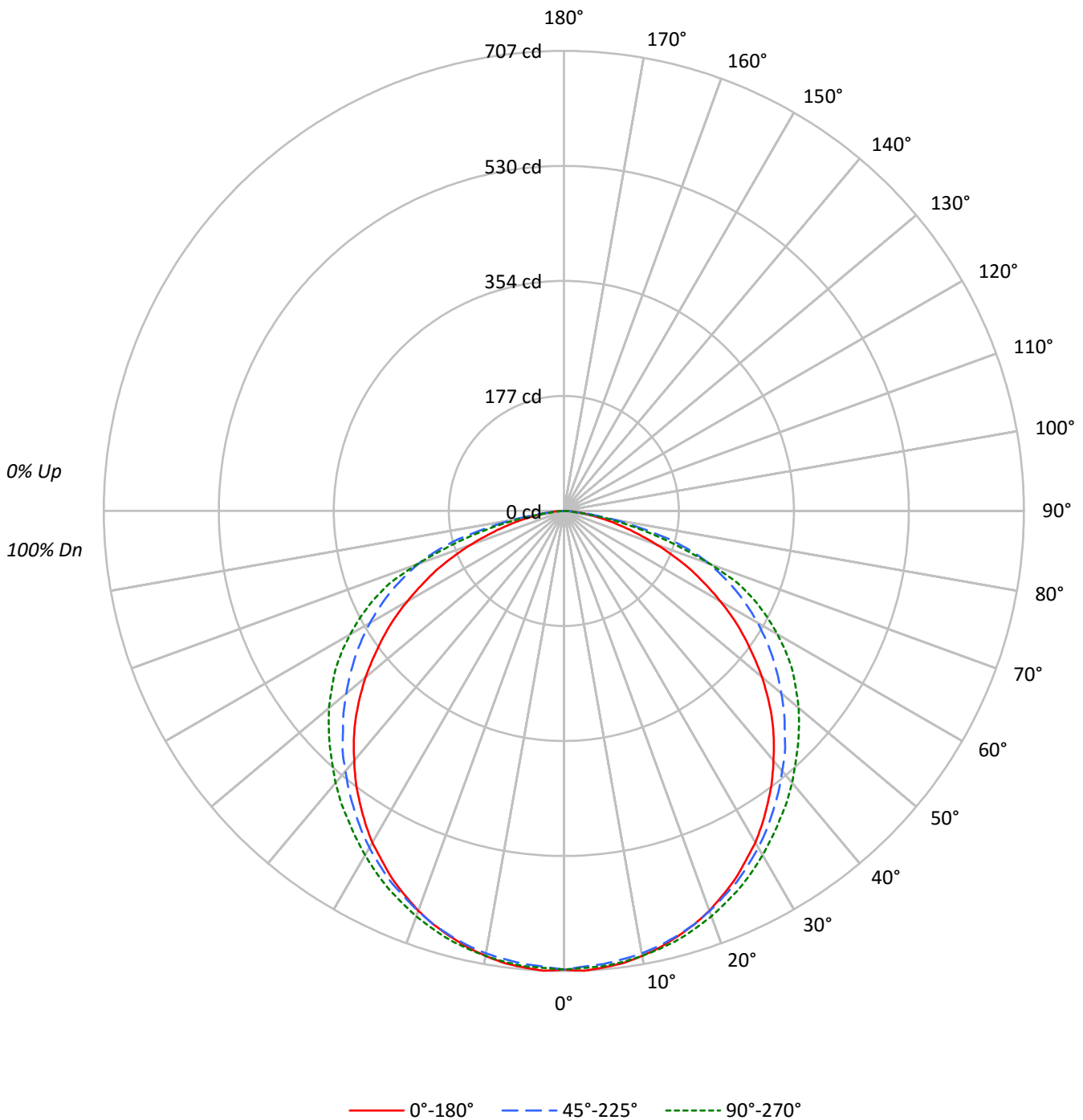
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1896	1896	1896
5°	1902	1888	1897
10°	1897	1886	1897
15°	1885	1881	1899
20°	1872	1874	1898
25°	1852	1868	1898
30°	1829	1857	1898
35°	1796	1843	1901
40°	1760	1834	1916
45°	1723	1827	1937
50°	1664	1827	1972
55°	1592	1837	2014
60°	1496	1851	2040
65°	1379	1869	2052
70°	1201	1874	1889
75°	991	1744	1526
80°	778	1254	1021
85°	605	485	241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	3.2
10°-20°	191.4	9.2
20°-30°	290.7	14.0
30°-40°	352.2	17.0
40°-50°	371.2	17.9
50°-60°	346.5	16.7
60°-70°	276.9	13.3
70°-80°	152.4	7.3
80°-90°	26.9	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°	548.9	26.5
0°-40°	901.1	43.4
0°-60°	1618.8	78.0
0°-90°	2075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	704	702	699	703	702	67
15°	677	677	675	682	682	191
25°	624	625	629	638	639	287
35°	547	552	561	576	579	342
45°	453	461	480	502	509	348
55°	339	356	392	419	429	303
65°	217	244	294	318	322	213
75°	95	136	168	151	147	103
85°	20	25	16	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.7	704.7	704.7	704.7	704.7
2.5°	707.3	705.3	700.8	704.7	702.7
5°	704.0	702.1	698.8	703.4	702.1
7.5°	700.8	698.2	694.9	700.1	698.8
10°	694.2	692.3	690.3	694.9	694.2
12.5°	686.4	685.8	683.8	689.0	688.4
15°	676.6	676.6	675.3	681.8	681.8
17.5°	666.2	665.5	666.2	673.4	672.7
20°	653.8	653.8	654.4	662.9	662.9
22.5°	638.8	639.4	641.4	651.8	651.2
25°	623.8	625.1	629.0	638.1	639.4
27.5°	605.5	608.8	613.3	624.4	625.7
30°	588.5	590.5	597.7	608.1	610.7
32.5°	568.3	572.2	580.1	591.8	595.1
35°	546.8	552.0	561.1	575.5	578.8
37.5°	525.2	529.8	542.2	557.2	563.1
40°	501.1	508.9	522.0	539.0	545.5
42.5°	477.6	485.4	503.1	520.7	526.6
45°	452.8	461.3	480.2	501.8	508.9
47.5°	425.4	435.2	459.3	482.2	490.0
50°	397.4	409.8	436.5	462.0	471.1
52.5°	368.0	383.7	414.3	441.1	449.6
55°	339.3	356.3	391.5	418.9	429.3
57.5°	309.9	328.2	368.0	399.3	405.2
60°	278.0	300.1	343.9	371.3	379.1
62.5°	246.6	272.1	319.1	345.2	351.7
65°	216.6	244.0	293.6	317.8	322.3
67.5°	184.0	216.6	265.6	287.7	289.0
70°	152.7	190.5	238.2	248.6	240.1
72.5°	122.0	162.5	206.2	197.7	190.5
75°	95.3	136.4	167.7	150.7	146.8
77.5°	70.5	111.6	120.1	110.9	103.7
80°	50.2	88.1	80.9	69.2	65.9
82.5°	34.6	55.5	44.4	34.6	30.0
85°	19.6	24.8	15.7	9.8	7.8
87.5°	8.5	5.9	3.3	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)