

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: P306982

Luminaire Tested: **14FCZ2-20-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: P306982
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: 14FCZ2-20-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: 1488.0 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

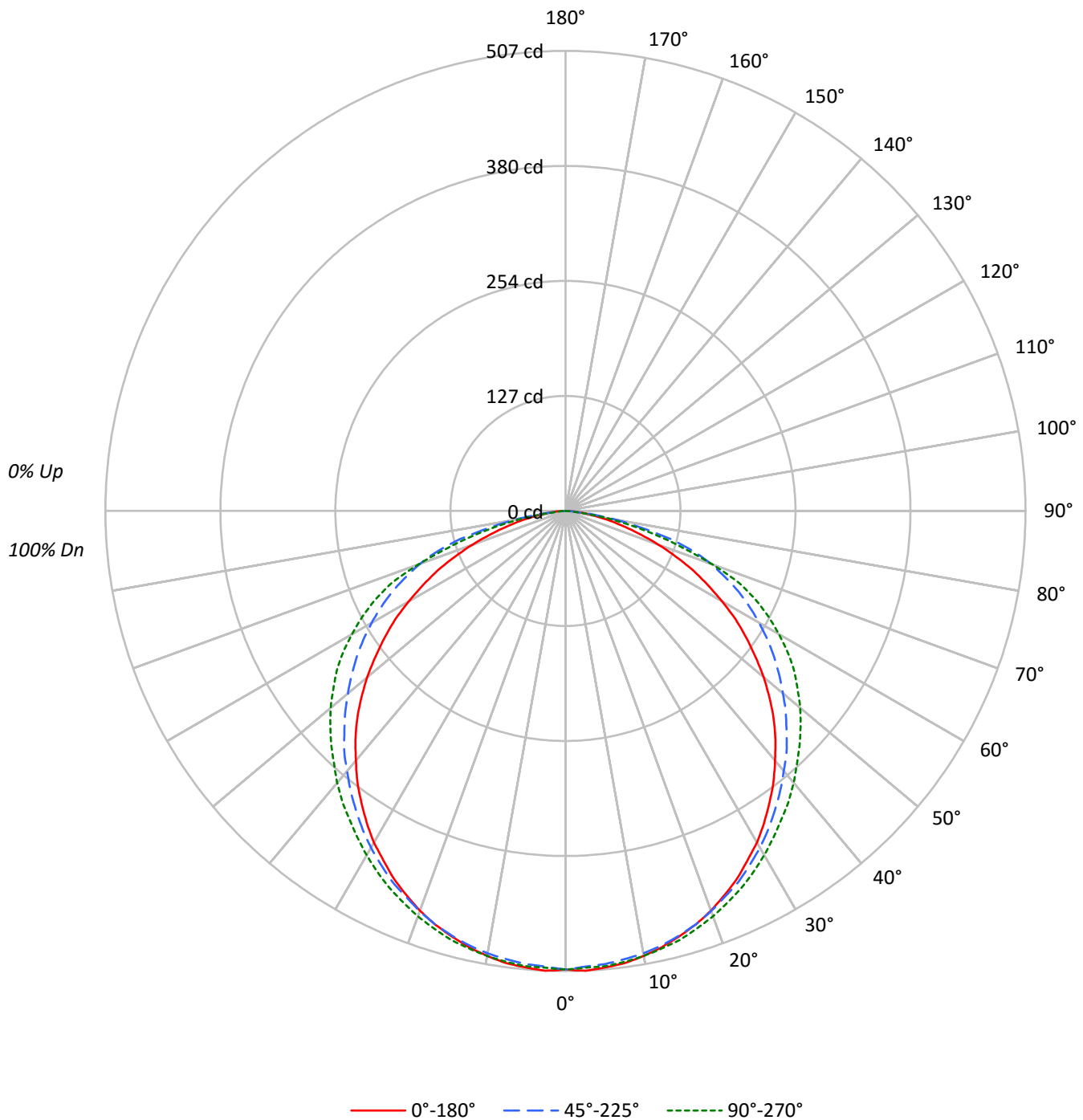
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1360	1360	1360
5°	1364	1354	1360
10°	1360	1353	1360
15°	1352	1349	1362
20°	1342	1344	1361
25°	1328	1339	1361
30°	1311	1332	1361
35°	1288	1322	1363
40°	1262	1315	1374
45°	1236	1311	1389
50°	1193	1310	1414
55°	1141	1317	1445
60°	1073	1327	1463
65°	989	1341	1472
70°	862	1344	1355
75°	710	1251	1095
80°	558	899	733
85°	432	346	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	3.2
10°-20°	137.3	9.2
20°-30°	208.5	14.0
30°-40°	252.6	17.0
40°-50°	266.2	17.9
50°-60°	248.5	16.7
60°-70°	198.6	13.3
70°-80°	109.3	7.3
80°-90°	19.3	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°	393.6	26.5
0°-40°	646.2	43.4
0°-60°	1160.9	78.0
0°-90°	1488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	505	505	505	505	505	
5°	505	504	501	504	504	48
15°	485	485	484	489	489	137
25°	447	448	451	458	458	206
35°	392	396	402	413	415	245
45°	325	331	344	360	365	250
55°	243	256	281	300	308	217
65°	155	175	211	228	231	153
75°	68	98	120	108	105	74
85°	14	18	11	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	505.3	505.3	505.3	505.3	505.3
2.5°	507.2	505.8	502.5	505.3	503.9
5°	504.9	503.5	501.1	504.4	503.5
7.5°	502.5	500.7	498.3	502.1	501.1
10°	497.8	496.4	495.0	498.3	497.8
12.5°	492.2	491.8	490.4	494.1	493.6
15°	485.2	485.2	484.3	489.0	489.0
17.5°	477.7	477.3	477.7	482.9	482.4
20°	468.8	468.8	469.3	475.4	475.4
22.5°	458.1	458.5	459.9	467.4	467.0
25°	447.3	448.2	451.1	457.6	458.5
27.5°	434.2	436.6	439.8	447.8	448.7
30°	422.0	423.4	428.6	436.1	438.0
32.5°	407.5	410.3	416.0	424.4	426.7
35°	392.1	395.8	402.4	412.7	415.0
37.5°	376.7	379.9	388.8	399.6	403.8
40°	359.3	365.0	374.3	386.5	391.2
42.5°	342.5	348.1	360.8	373.4	377.6
45°	324.7	330.8	344.4	359.8	365.0
47.5°	305.1	312.1	329.4	345.8	351.4
50°	285.0	293.8	313.0	331.3	337.8
52.5°	263.9	275.1	297.1	316.3	322.4
55°	243.3	255.5	280.7	300.4	307.9
57.5°	222.3	235.4	263.9	286.4	290.6
60°	199.3	215.2	246.6	266.2	271.9
62.5°	176.9	195.1	228.8	247.5	252.2
65°	155.3	175.0	210.6	227.9	231.1
67.5°	131.9	155.3	190.4	206.3	207.3
70°	109.5	136.6	170.8	178.3	172.2
72.5°	87.5	116.5	147.9	141.8	136.6
75°	68.3	97.8	120.3	108.1	105.3
77.5°	50.5	80.0	86.1	79.5	74.4
80°	36.0	63.2	58.0	49.6	47.3
82.5°	24.8	39.8	31.8	24.8	21.5
85°	14.0	17.8	11.2	7.0	5.6
87.5°	6.1	4.2	2.3	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)