

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: P307165

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CA08-W2A-U-5000K**

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: P307165
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: 14FCZ2-39-UNV-L82765-HRP-CA08-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 2904.0 lumens
Efficiency: N/A
Efficacy: 85.2 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

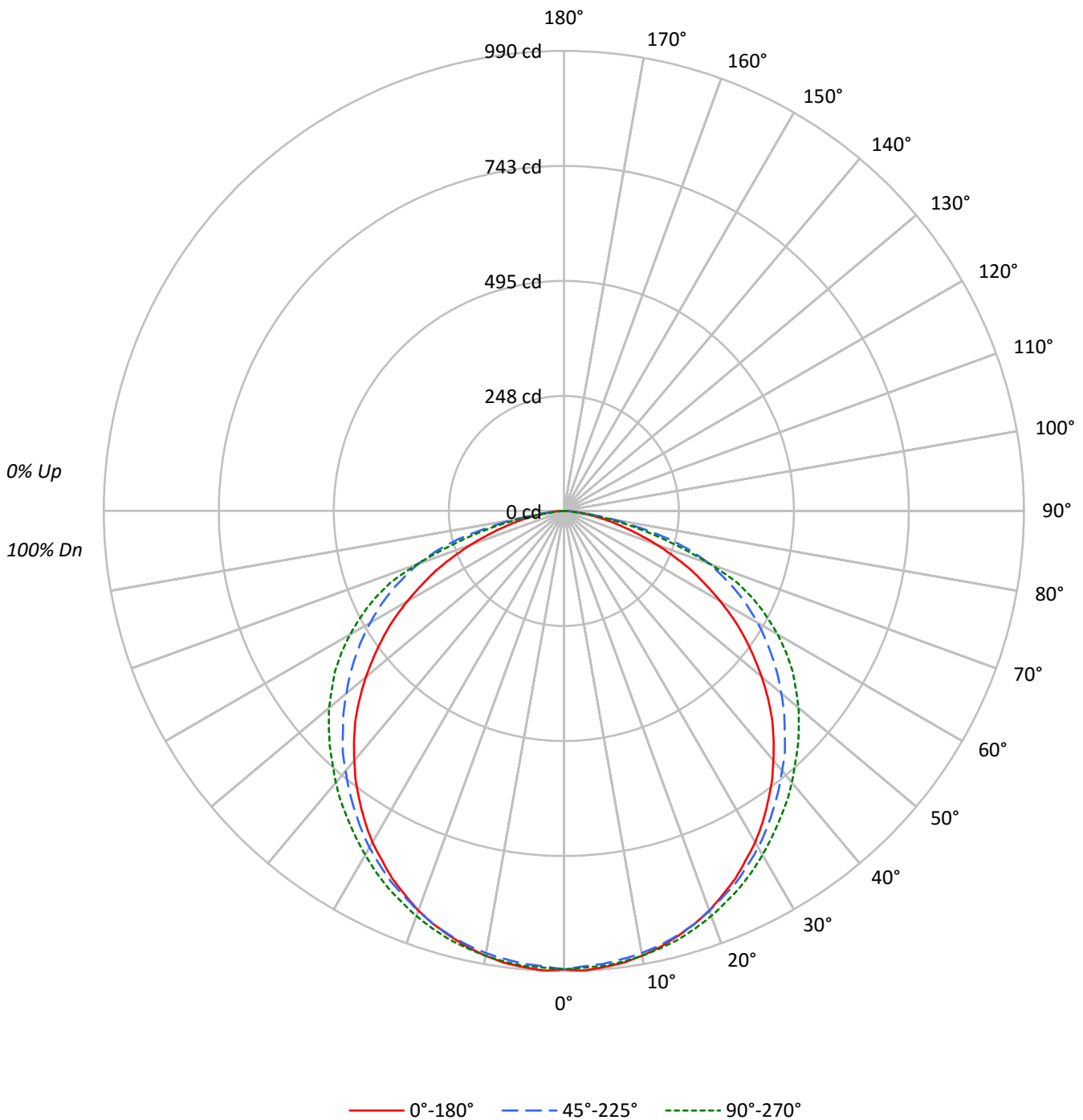
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2654	2654	2654
5°	2662	2642	2654
10°	2655	2640	2655
15°	2638	2633	2659
20°	2620	2623	2657
25°	2592	2614	2657
30°	2559	2599	2656
35°	2514	2580	2661
40°	2464	2566	2682
45°	2412	2558	2711
50°	2328	2557	2760
55°	2228	2571	2819
60°	2094	2590	2855
65°	1931	2616	2872
70°	1681	2622	2644
75°	1386	2440	2137
80°	1089	1754	1429
85°	846	676	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	3.2
10°-20°	267.9	9.2
20°-30°	406.9	14.0
30°-40°	493.0	17.0
40°-50°	519.5	17.9
50°-60°	485.0	16.7
60°-70°	387.6	13.3
70°-80°	213.3	7.3
80°-90°	37.7	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°	768.1	26.5
0°-40°	1261.1	43.4
0°-60°	2265.5	78.0
0°-90°	2904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	985	983	978	984	983	94
15°	947	947	945	954	954	267
25°	873	875	880	893	895	402
35°	765	772	785	805	810	479
45°	634	646	672	702	712	488
55°	475	499	548	586	601	424
65°	303	342	411	445	451	298
75°	133	191	235	211	206	144
85°	27	35	22	14	11	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	986.2	986.2	986.2	986.2	986.2
2.5°	989.9	987.1	980.7	986.2	983.5
5°	985.3	982.6	978.0	984.4	982.6
7.5°	980.7	977.1	972.5	979.8	978.0
10°	971.6	968.9	966.1	972.5	971.6
12.5°	960.6	959.7	957.0	964.3	963.4
15°	946.9	946.9	945.1	954.3	954.3
17.5°	932.3	931.4	932.3	942.4	941.5
20°	915.0	915.0	915.9	927.8	927.8
22.5°	894.0	894.9	897.6	912.2	911.3
25°	873.0	874.8	880.3	893.1	894.9
27.5°	847.4	852.0	858.4	873.9	875.7
30°	823.7	826.4	836.5	851.1	854.7
32.5°	795.4	800.8	811.8	828.2	832.8
35°	765.2	772.5	785.3	805.4	810.0
37.5°	735.1	741.5	758.8	779.8	788.1
40°	701.3	712.3	730.5	754.3	763.4
42.5°	668.4	679.4	704.0	728.7	736.9
45°	633.7	645.6	672.1	702.2	712.3
47.5°	595.4	609.1	642.9	674.8	685.8
50°	556.1	573.5	610.9	646.5	659.3
52.5°	515.0	536.9	579.9	617.3	629.2
55°	474.8	498.6	547.9	586.2	600.9
57.5°	433.8	459.3	515.0	558.9	567.1
60°	389.0	420.1	481.2	519.6	530.5
62.5°	345.2	380.8	446.5	483.1	492.2
65°	303.2	341.5	410.9	444.7	451.1
67.5°	257.5	303.2	371.7	402.7	404.5
70°	213.7	266.6	333.3	347.9	336.0
72.5°	170.8	227.4	288.6	276.7	266.6
75°	133.3	190.9	234.7	210.9	205.5
77.5°	98.6	156.2	168.0	155.2	145.2
80°	70.3	123.3	113.2	96.8	92.2
82.5°	48.4	77.6	62.1	48.4	42.0
85°	27.4	34.7	21.9	13.7	11.0
87.5°	11.9	8.2	4.6	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)