

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: P307163

Luminaire Tested: **14FCZ2-39-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: P307163
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-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: 2815.0 lumens
Efficiency: N/A
Efficacy: 83.5 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

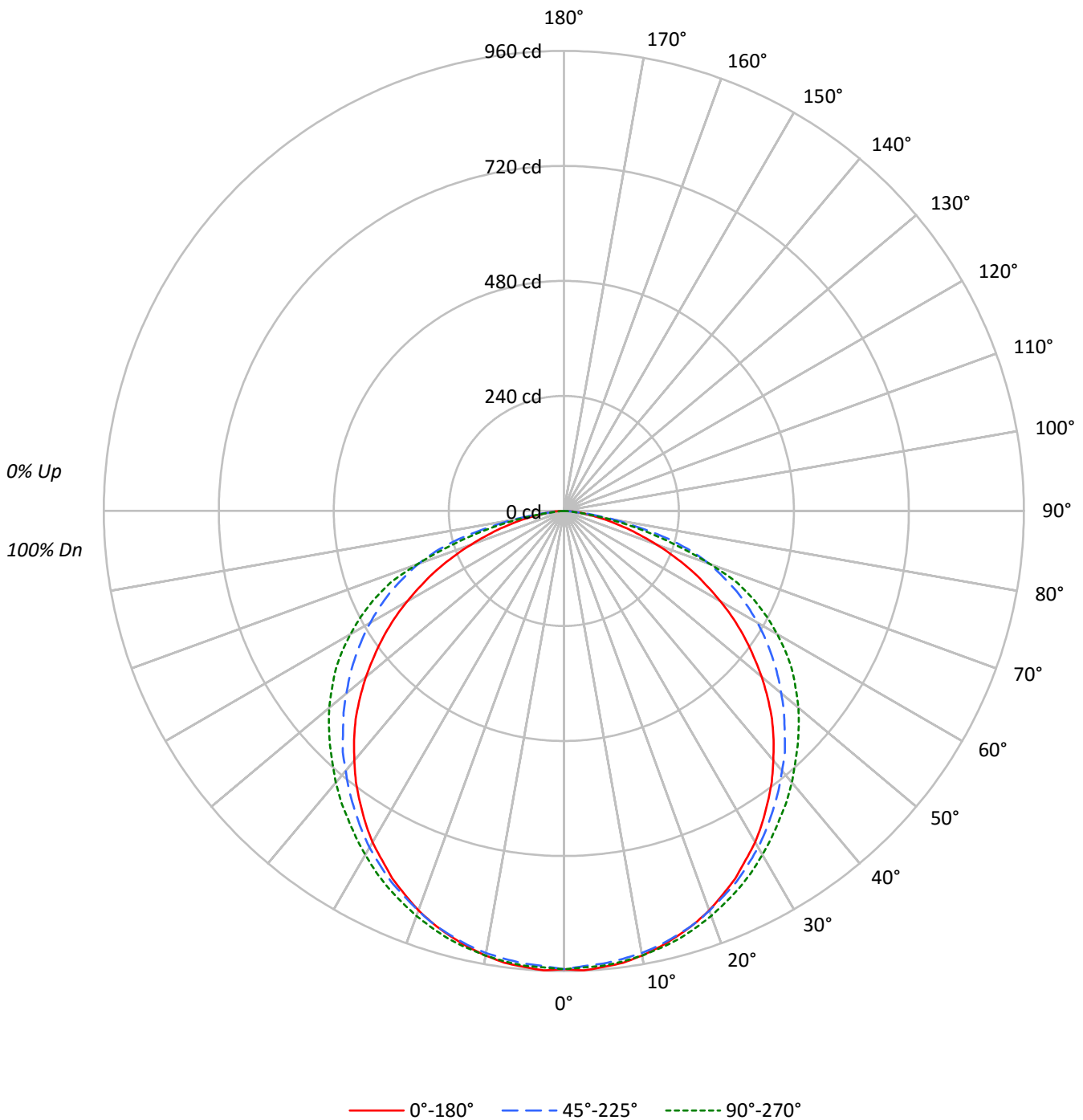
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2573	2573	2573
5°	2580	2561	2573
10°	2573	2559	2573
15°	2557	2552	2577
20°	2540	2542	2575
25°	2513	2534	2576
30°	2481	2519	2574
35°	2437	2501	2579
40°	2388	2487	2599
45°	2338	2479	2627
50°	2257	2479	2676
55°	2160	2492	2732
60°	2030	2511	2768
65°	1871	2536	2784
70°	1629	2542	2563
75°	1343	2365	2071
80°	1057	1702	1385
85°	821	655	327



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	3.2
10°-20°	259.7	9.2
20°-30°	394.4	14.0
30°-40°	477.9	17.0
40°-50°	503.5	17.9
50°-60°	470.1	16.7
60°-70°	375.7	13.3
70°-80°	206.7	7.3
80°-90°	36.5	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°	744.6	26.5
0°-40°	1222.4	43.4
0°-60°	2196.1	78.0
0°-90°	2815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2815.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	955	952	948	954	952	91
15°	918	918	916	925	925	259
25°	846	848	853	866	868	390
35°	742	749	761	781	785	464
45°	614	626	652	681	690	473
55°	460	483	531	568	582	411
65°	294	331	398	431	437	289
75°	129	185	228	204	199	139
85°	27	34	21	13	11	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	956.0	956.0	956.0	956.0	956.0
2.5°	959.5	956.9	950.7	956.0	953.3
5°	955.1	952.4	948.0	954.2	952.4
7.5°	950.7	947.1	942.7	949.8	948.0
10°	941.8	939.2	936.5	942.7	941.8
12.5°	931.2	930.3	927.7	934.7	933.9
15°	917.9	917.9	916.2	925.0	925.0
17.5°	903.8	902.9	903.8	913.5	912.6
20°	886.9	886.9	887.8	899.3	899.3
22.5°	866.6	867.5	870.1	884.3	883.4
25°	846.2	848.0	853.3	865.7	867.5
27.5°	821.4	825.9	832.1	847.1	848.9
30°	798.4	801.1	810.8	825.0	828.5
32.5°	771.0	776.3	786.9	802.9	807.3
35°	741.8	748.9	761.2	780.7	785.1
37.5°	712.6	718.8	735.6	755.9	763.9
40°	679.8	690.4	708.1	731.2	740.0
42.5°	647.9	658.6	682.5	706.4	714.3
45°	614.3	625.8	651.5	680.7	690.4
47.5°	577.1	590.4	623.2	654.1	664.8
50°	539.1	555.9	592.2	626.7	639.1
52.5°	499.2	520.5	562.1	598.4	609.9
55°	460.3	483.3	531.1	568.3	582.4
57.5°	420.5	445.2	499.2	541.7	549.7
60°	377.1	407.2	466.5	503.7	514.3
62.5°	334.6	369.1	432.9	468.3	477.1
65°	293.9	331.1	398.3	431.1	437.3
67.5°	249.6	293.9	360.3	390.4	392.1
70°	207.1	258.5	323.1	337.3	325.7
72.5°	165.5	220.4	279.7	268.2	258.5
75°	129.2	185.0	227.5	204.5	199.2
77.5°	95.6	151.4	162.9	150.5	140.7
80°	68.2	119.5	109.8	93.8	89.4
82.5°	46.9	75.2	60.2	46.9	40.7
85°	26.6	33.6	21.2	13.3	10.6
87.5°	11.5	8.0	4.4	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)