

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: P307883

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-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: P307883
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2826.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

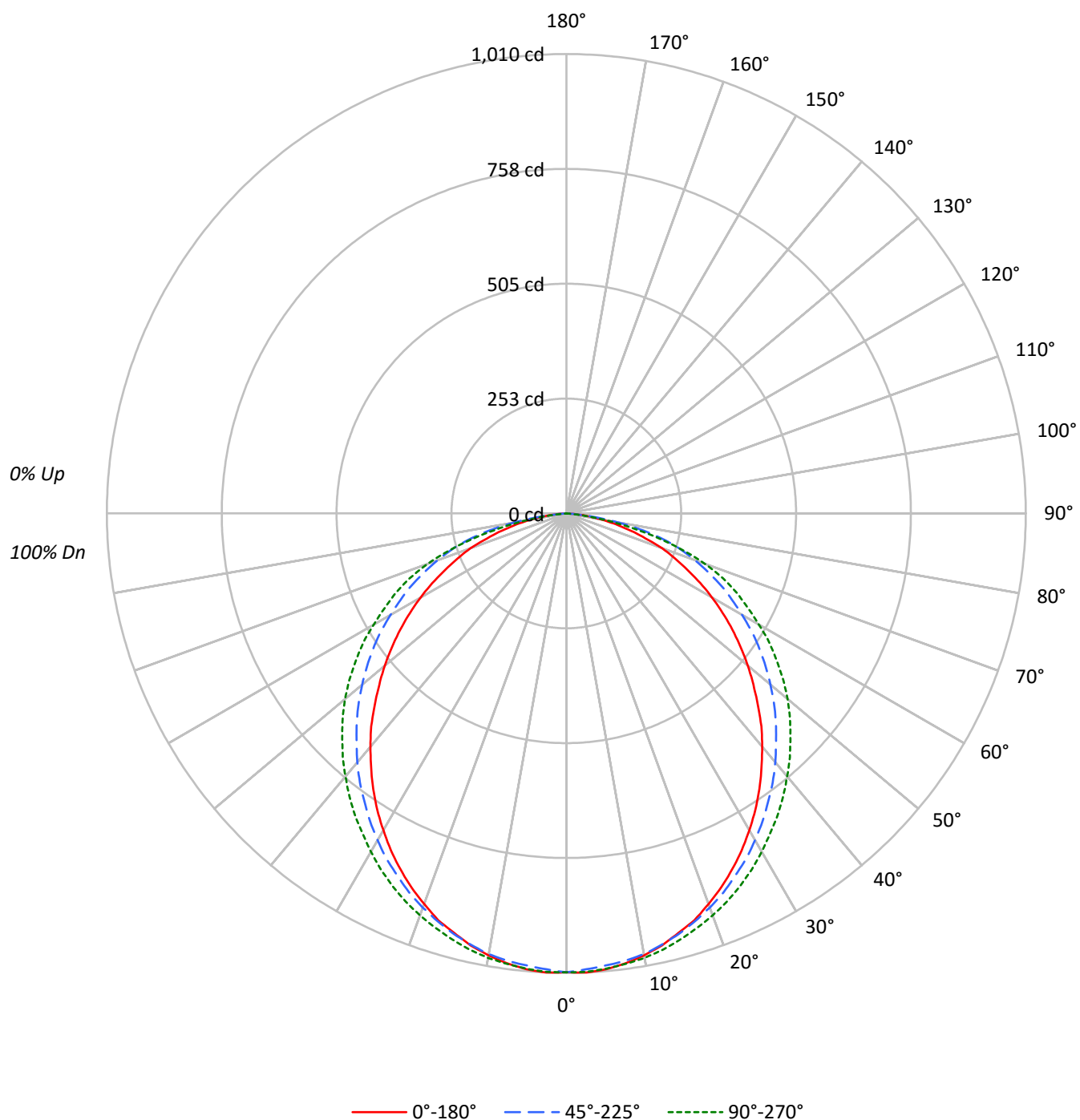
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2715	2715	2715
5°	2717	2695	2714
10°	2695	2688	2711
15°	2658	2666	2701
20°	2616	2640	2692
25°	2563	2608	2683
30°	2499	2577	2669
35°	2430	2541	2661
40°	2353	2510	2653
45°	2266	2479	2650
50°	2182	2452	2657
55°	2091	2432	2649
60°	1991	2398	2632
65°	1873	2391	2632
70°	1764	2370	2558
75°	1529	2316	2185
80°	1238	1867	1455
85°	821	648	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	3.4
10°-20°	271.1	9.6
20°-30°	406.6	14.4
30°-40°	485.1	17.2
40°-50°	501.5	17.7
50°-60°	457.8	16.2
60°-70°	360.3	12.7
70°-80°	209.7	7.4
80°-90°	38.6	1.4
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°	773.0	27.4
0°-40°	1258.0	44.5
0°-60°	2217.3	78.5
0°-90°	2826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1009	1009	1009	1009	1009	
5°	1006	1003	998	1006	1005	95
15°	954	956	957	970	970	269
25°	863	867	878	900	904	397
35°	740	750	773	803	810	462
45°	596	615	652	688	696	460
55°	446	469	518	556	565	398
65°	294	325	376	405	413	292
75°	147	182	223	219	210	156
85°	27	38	21	17	14	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1008.8	1008.8	1008.8	1008.8	1008.8
2.5°	1010.2	1007.4	1003.2	1010.2	1008.8
5°	1006.0	1003.2	997.6	1006.0	1004.6
7.5°	997.6	994.8	992.0	1000.4	999.0
10°	986.4	985.0	983.6	993.4	992.0
12.5°	972.4	972.4	971.0	982.2	982.2
15°	954.2	955.6	957.0	969.6	969.6
17.5°	937.4	936.0	940.2	954.2	955.6
20°	913.6	916.4	922.0	938.8	940.2
22.5°	889.7	892.5	902.3	919.2	923.4
25°	863.1	867.3	878.5	899.5	903.7
27.5°	835.1	840.7	856.1	878.5	882.7
30°	804.3	812.7	829.5	854.7	858.9
32.5°	773.4	781.8	802.9	828.1	833.7
35°	739.8	749.6	773.4	802.9	809.9
37.5°	704.8	717.4	745.4	774.8	783.2
40°	669.8	683.8	714.6	745.4	755.2
42.5°	634.7	648.7	682.4	717.4	727.2
45°	595.5	615.1	651.5	688.0	696.4
47.5°	557.7	578.7	619.3	655.7	667.0
50°	521.2	542.2	585.7	623.5	634.7
52.5°	483.4	505.8	552.1	591.3	601.1
55°	445.6	469.4	518.4	556.3	564.7
57.5°	407.7	433.0	483.4	519.8	529.6
60°	369.9	396.5	445.6	482.0	489.0
62.5°	332.1	360.1	410.5	442.8	449.8
65°	294.2	325.1	375.5	404.9	413.3
67.5°	257.8	288.6	337.7	365.7	372.7
70°	224.2	252.2	301.2	322.3	325.1
72.5°	182.2	217.2	264.8	276.0	269.0
75°	147.1	182.2	222.8	218.6	210.2
77.5°	112.1	147.1	173.7	159.7	148.5
80°	79.9	114.9	120.5	99.5	93.9
82.5°	51.8	79.9	67.3	51.8	42.0
85°	26.6	37.8	21.0	16.8	14.0
87.5°	8.4	5.6	2.8	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)