

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: P307914

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-CP187-W2A-U-5700K**

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: P307914
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-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5700K 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: 2762.0 lumens
Efficiency: N/A
Efficacy: 112.7 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

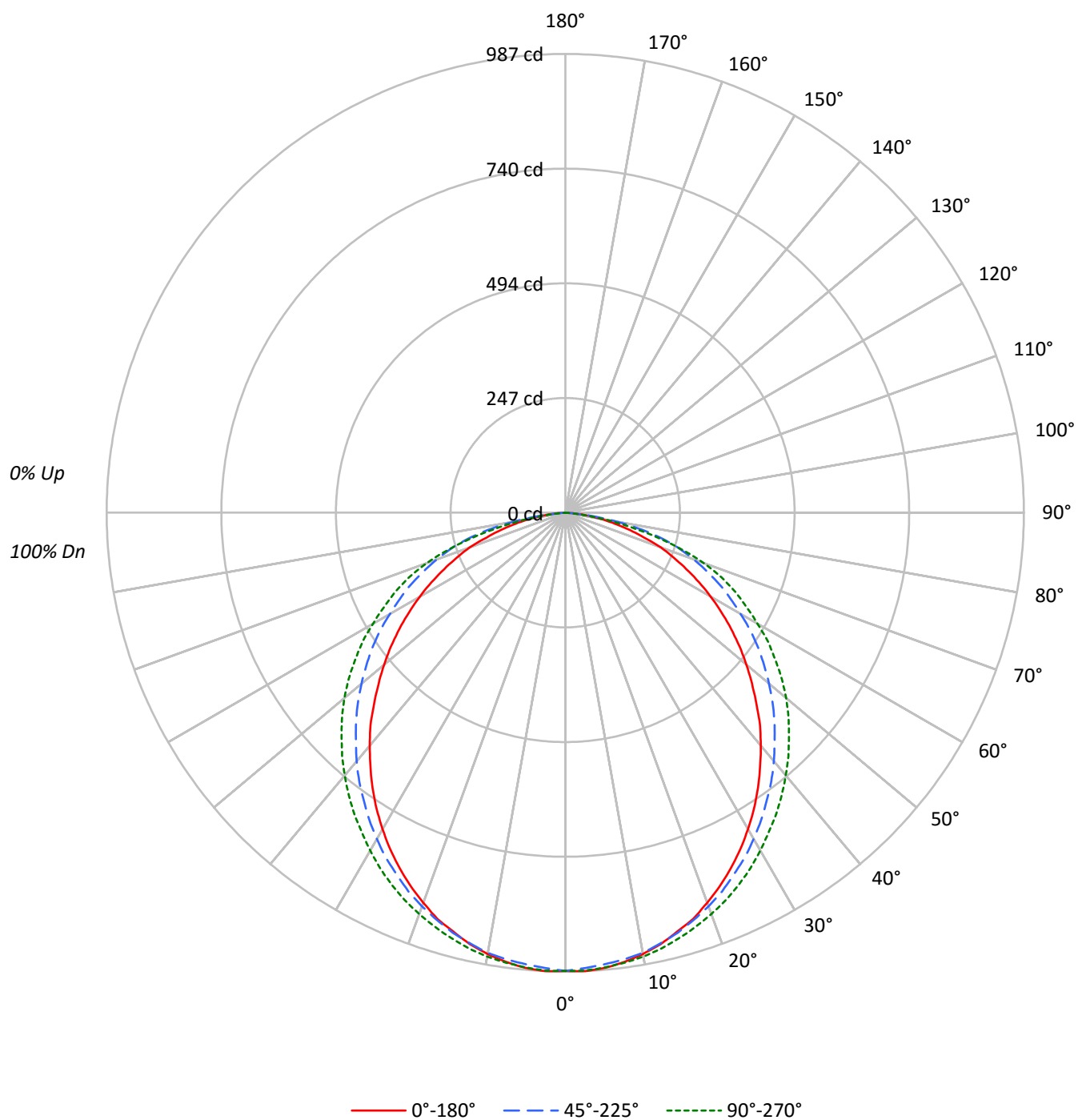
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2653	2653	2653
5°	2656	2634	2652
10°	2634	2627	2649
15°	2598	2606	2640
20°	2557	2580	2631
25°	2505	2549	2623
30°	2443	2519	2609
35°	2375	2483	2600
40°	2299	2453	2593
45°	2215	2423	2590
50°	2133	2396	2597
55°	2043	2377	2589
60°	1946	2344	2572
65°	1831	2337	2572
70°	1724	2316	2500
75°	1495	2263	2136
80°	1210	1826	1423
85°	803	633	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.1	3.4
10°-20°	264.9	9.6
20°-30°	397.4	14.4
30°-40°	474.1	17.2
40°-50°	490.1	17.7
50°-60°	447.5	16.2
60°-70°	352.1	12.7
70°-80°	205.0	7.4
80°-90°	37.8	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°	755.5	27.4
0°-40°	1229.5	44.5
0°-60°	2167.1	78.5
0°-90°	2762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	983	980	975	983	982	93
15°	933	934	935	948	948	263
25°	844	848	859	879	883	388
35°	723	733	756	785	792	452
45°	582	601	637	672	681	449
55°	436	459	507	544	552	389
65°	288	318	367	396	404	286
75°	144	178	218	214	205	153
85°	26	37	20	16	14	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	986.0	986.0	986.0	986.0	986.0
2.5°	987.4	984.6	980.5	987.4	986.0
5°	983.2	980.5	975.0	983.2	981.9
7.5°	975.0	972.3	969.6	977.8	976.4
10°	964.1	962.7	961.3	970.9	969.6
12.5°	950.4	950.4	949.0	960.0	960.0
15°	932.6	933.9	935.3	947.6	947.6
17.5°	916.1	914.8	918.9	932.6	933.9
20°	892.9	895.6	901.1	917.5	918.9
22.5°	869.6	872.3	881.9	898.3	902.5
25°	843.6	847.7	858.6	879.2	883.3
27.5°	816.2	821.7	836.7	858.6	862.7
30°	786.1	794.3	810.7	835.4	839.5
32.5°	755.9	764.1	784.7	809.3	814.8
35°	723.1	732.6	755.9	784.7	791.5
37.5°	688.8	701.1	728.5	757.3	765.5
40°	654.6	668.3	698.4	728.5	738.1
42.5°	620.4	634.0	666.9	701.1	710.7
45°	582.0	601.2	636.8	672.4	680.6
47.5°	545.0	565.6	605.3	640.9	651.8
50°	509.4	530.0	572.4	609.4	620.4
52.5°	472.5	494.4	539.6	577.9	587.5
55°	435.5	458.8	506.7	543.7	551.9
57.5°	398.5	423.2	472.5	508.1	517.6
60°	361.5	387.5	435.5	471.1	477.9
62.5°	324.6	351.9	401.2	432.7	439.6
65°	287.6	317.7	367.0	395.8	404.0
67.5°	252.0	282.1	330.0	357.4	364.3
70°	219.1	246.5	294.4	315.0	317.7
72.5°	178.0	212.3	258.8	269.8	262.9
75°	143.8	178.0	217.7	213.6	205.4
77.5°	109.6	143.8	169.8	156.1	145.2
80°	78.1	112.3	117.8	97.2	91.8
82.5°	50.7	78.1	65.7	50.7	41.1
85°	26.0	37.0	20.5	16.4	13.7
87.5°	8.2	5.5	2.7	2.7	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)