

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: P307641

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP187-W2A-U-4500K**

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: P307641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 2663.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

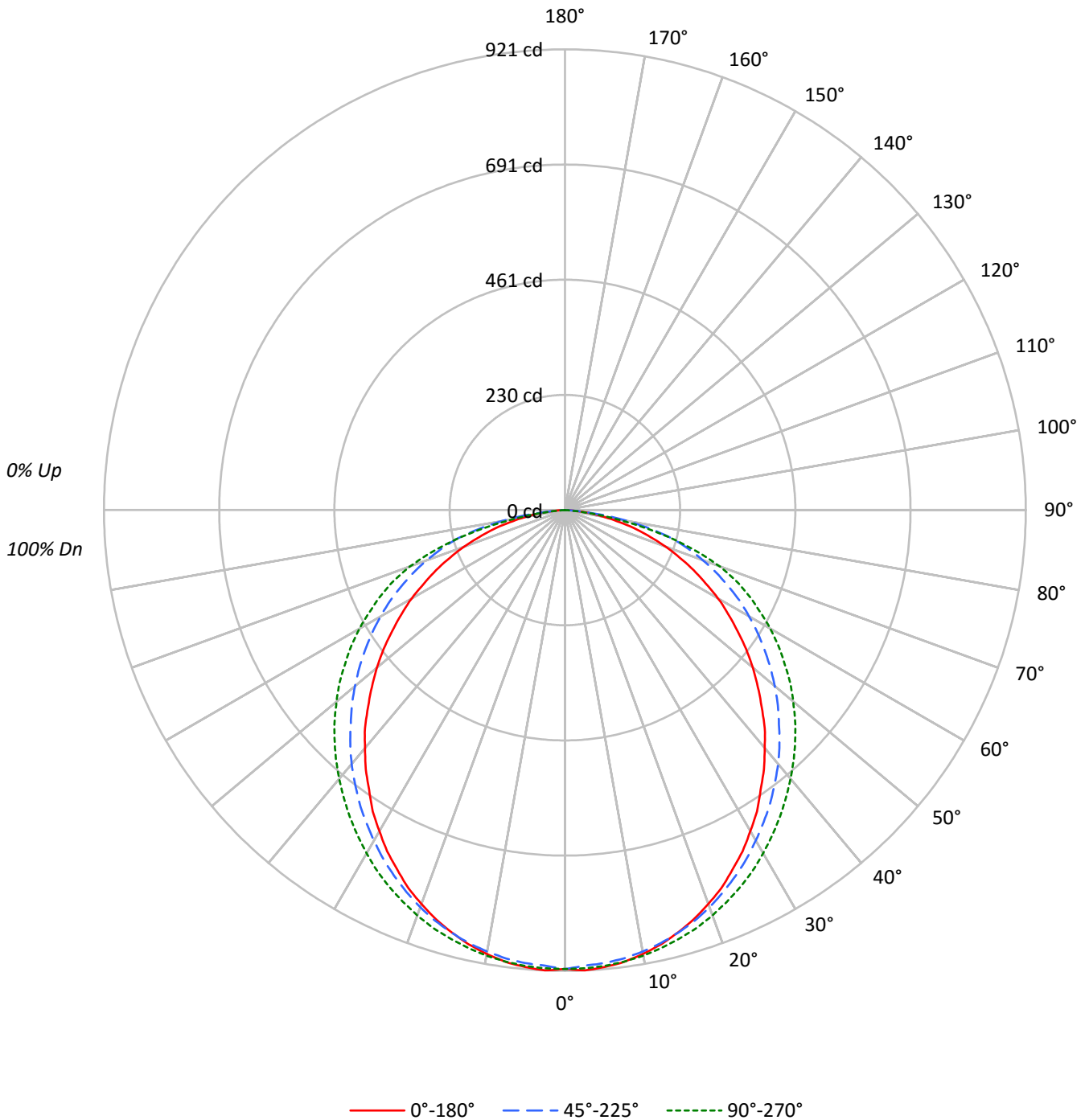
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2469	2469	2469
5°	2477	2456	2470
10°	2461	2448	2471
15°	2435	2437	2470
20°	2399	2420	2469
25°	2354	2396	2466
30°	2303	2371	2461
35°	2241	2350	2460
40°	2182	2328	2464
45°	2115	2303	2477
50°	2053	2292	2493
55°	1975	2284	2516
60°	1905	2288	2550
65°	1807	2295	2590
70°	1696	2312	2589
75°	1538	2334	2339
80°	1260	2015	1666
85°	936	954	386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	3.3
10°-20°	248.0	9.3
20°-30°	373.6	14.0
30°-40°	448.3	16.8
40°-50°	467.2	17.5
50°-60°	432.6	16.2
60°-70°	349.5	13.1
70°-80°	213.1	8.0
80°-90°	44.0	1.7
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°	708.4	26.6
0°-40°	1156.7	43.4
0°-60°	2056.4	77.2
0°-90°	2663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2663.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	917	914	909	916	914	87
15°	874	875	875	886	886	246
25°	793	798	807	827	831	365
35°	682	693	716	742	749	427
45°	556	572	605	639	651	430
55°	421	443	487	525	536	377
65°	284	312	360	397	407	281
75°	148	180	224	228	225	155
85°	30	45	31	17	12	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	917.4	917.4	917.4	917.4	917.4
2.5°	921.0	918.0	911.5	918.0	916.8
5°	916.8	914.4	909.1	915.6	914.4
7.5°	910.9	908.5	903.8	911.5	910.3
10°	900.8	899.6	896.0	904.9	904.3
12.5°	888.9	888.3	886.5	896.6	896.0
15°	874.1	874.7	874.7	886.5	886.5
17.5°	857.4	858.6	861.0	874.1	875.8
20°	837.8	840.2	845.0	859.8	862.2
22.5°	817.7	819.4	826.6	844.4	846.8
25°	792.7	797.5	807.0	827.2	830.7
27.5°	769.0	773.1	786.2	807.0	812.9
30°	741.1	747.6	763.0	785.6	792.1
32.5°	714.3	721.5	739.3	765.4	771.3
35°	682.3	693.0	715.5	741.6	748.8
37.5°	653.2	663.3	688.8	717.3	725.6
40°	621.1	633.6	662.7	693.0	701.3
42.5°	591.4	603.3	634.8	665.6	676.9
45°	555.8	572.4	605.1	638.9	650.8
47.5°	523.1	539.8	577.2	613.4	624.1
50°	490.5	508.3	547.5	584.9	595.6
52.5°	456.6	475.6	517.8	555.2	567.7
55°	421.0	443.0	486.9	524.9	536.2
57.5°	387.2	409.7	456.6	495.2	506.5
60°	353.9	377.1	425.2	462.0	473.8
62.5°	317.1	344.4	394.3	430.5	439.4
65°	283.8	311.7	360.4	396.7	406.7
67.5°	248.8	279.1	327.8	361.0	370.5
70°	215.5	247.0	293.9	324.8	329.0
72.5°	179.9	212.0	259.5	279.1	279.1
75°	147.9	180.5	224.5	228.0	225.0
77.5°	112.8	149.0	177.5	170.4	163.3
80°	81.3	117.0	130.0	117.0	107.5
82.5°	54.6	84.9	78.4	62.3	55.2
85°	30.3	45.1	30.9	17.2	12.5
87.5°	11.3	10.1	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)