

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: P307643

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP187-W2A-U-5500K**

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: P307643
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-5500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5500K 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: 2726.0 lumens
Efficiency: N/A
Efficacy: 111.3 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

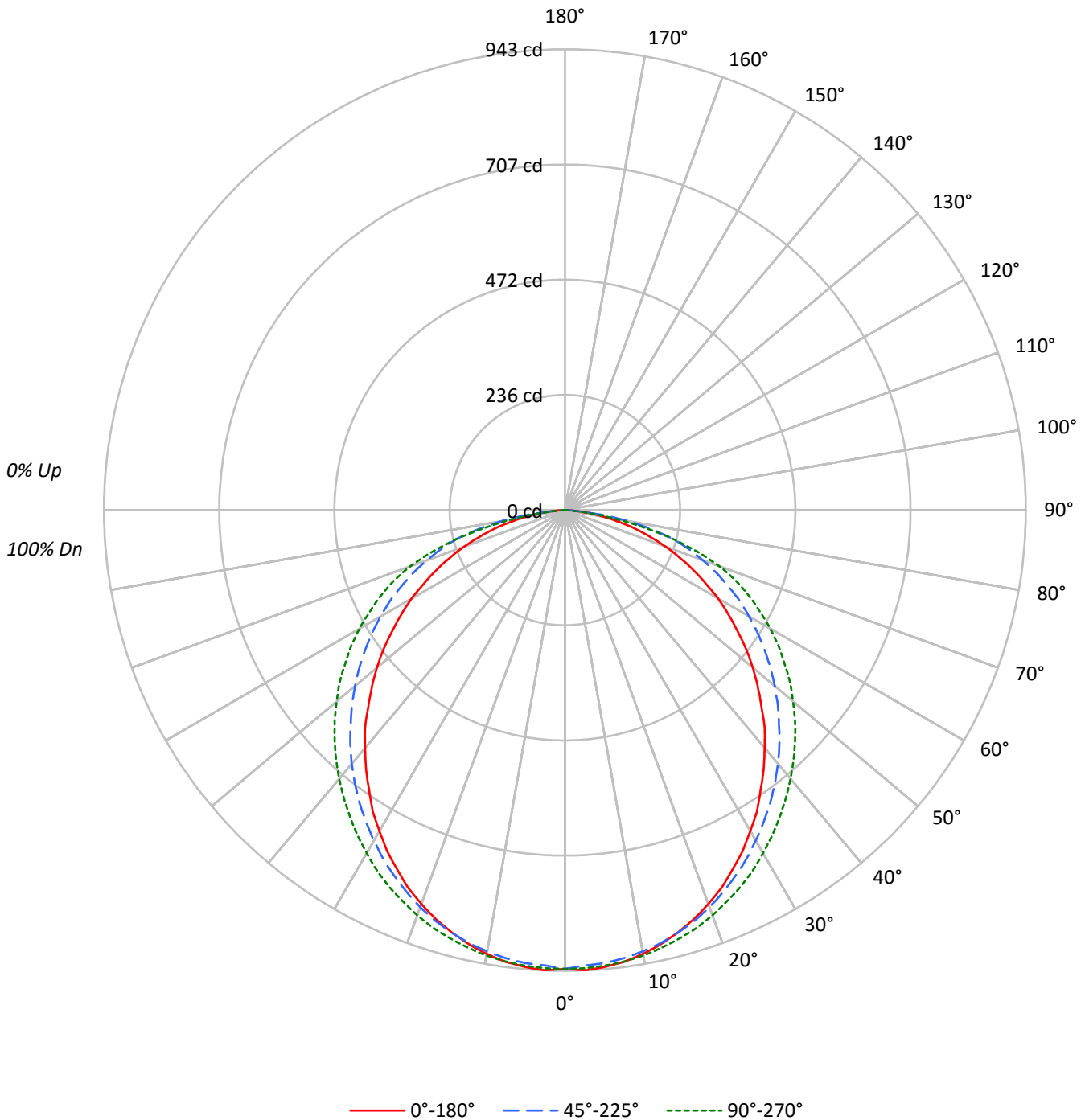
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2527	2527	2527
5°	2535	2514	2529
10°	2520	2506	2529
15°	2493	2495	2528
20°	2456	2477	2527
25°	2409	2453	2525
30°	2357	2427	2520
35°	2294	2406	2518
40°	2233	2383	2522
45°	2165	2357	2535
50°	2102	2346	2552
55°	2022	2338	2575
60°	1950	2342	2611
65°	1850	2350	2651
70°	1736	2367	2649
75°	1574	2389	2396
80°	1291	2063	1705
85°	957	976	395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	3.3
10°-20°	253.9	9.3
20°-30°	382.4	14.0
30°-40°	458.9	16.8
40°-50°	478.3	17.5
50°-60°	442.8	16.2
60°-70°	357.8	13.1
70°-80°	218.1	8.0
80°-90°	45.0	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°	725.1	26.6
0°-40°	1184.0	43.4
0°-60°	2105.1	77.2
0°-90°	2726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	939	939	939	939	939	
5°	938	936	931	937	936	89
15°	895	895	895	908	908	252
25°	812	816	826	847	850	374
35°	698	709	732	759	766	438
45°	569	586	619	654	666	440
55°	431	454	498	537	549	386
65°	290	319	369	406	416	287
75°	151	185	230	233	230	159
85°	31	46	32	18	13	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	939.1	939.1	939.1	939.1	939.1
2.5°	942.8	939.7	933.0	939.7	938.5
5°	938.5	936.1	930.6	937.3	936.1
7.5°	932.4	930.0	925.1	933.0	931.8
10°	922.1	920.9	917.2	926.4	925.7
12.5°	909.9	909.3	907.5	917.8	917.2
15°	894.7	895.4	895.4	907.5	907.5
17.5°	877.7	878.9	881.4	894.7	896.6
20°	857.7	860.1	865.0	880.2	882.6
22.5°	837.0	838.8	846.1	864.4	866.8
25°	811.5	816.3	826.1	846.7	850.4
27.5°	787.2	791.4	804.8	826.1	832.1
30°	758.6	765.3	781.1	804.2	810.9
32.5°	731.2	738.5	756.8	783.5	789.6
35°	698.4	709.4	732.4	759.2	766.5
37.5°	668.6	679.0	705.1	734.3	742.8
40°	635.8	648.6	678.4	709.4	717.9
42.5°	605.4	617.6	649.8	681.4	692.9
45°	568.9	586.0	619.4	654.0	666.2
47.5°	535.5	552.5	590.8	627.9	638.8
50°	502.1	520.3	560.4	598.7	609.7
52.5°	467.4	486.9	530.0	568.3	581.1
55°	431.0	453.5	498.4	537.3	548.9
57.5°	396.3	419.4	467.4	506.9	518.5
60°	362.3	386.0	435.2	472.9	485.1
62.5°	324.6	352.5	403.6	440.7	449.8
65°	290.5	319.1	369.0	406.0	416.4
67.5°	254.7	285.7	335.5	369.6	379.3
70°	220.6	252.9	300.9	332.5	336.7
72.5°	184.2	217.0	265.6	285.7	285.7
75°	151.4	184.8	229.8	233.4	230.4
77.5°	115.5	152.6	181.7	174.5	167.2
80°	83.3	119.7	133.1	119.7	110.0
82.5°	55.9	86.9	80.2	63.8	56.5
85°	31.0	46.2	31.6	17.6	12.8
87.5°	11.5	10.3	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)