

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: P307911

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-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: P307911
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-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2691.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

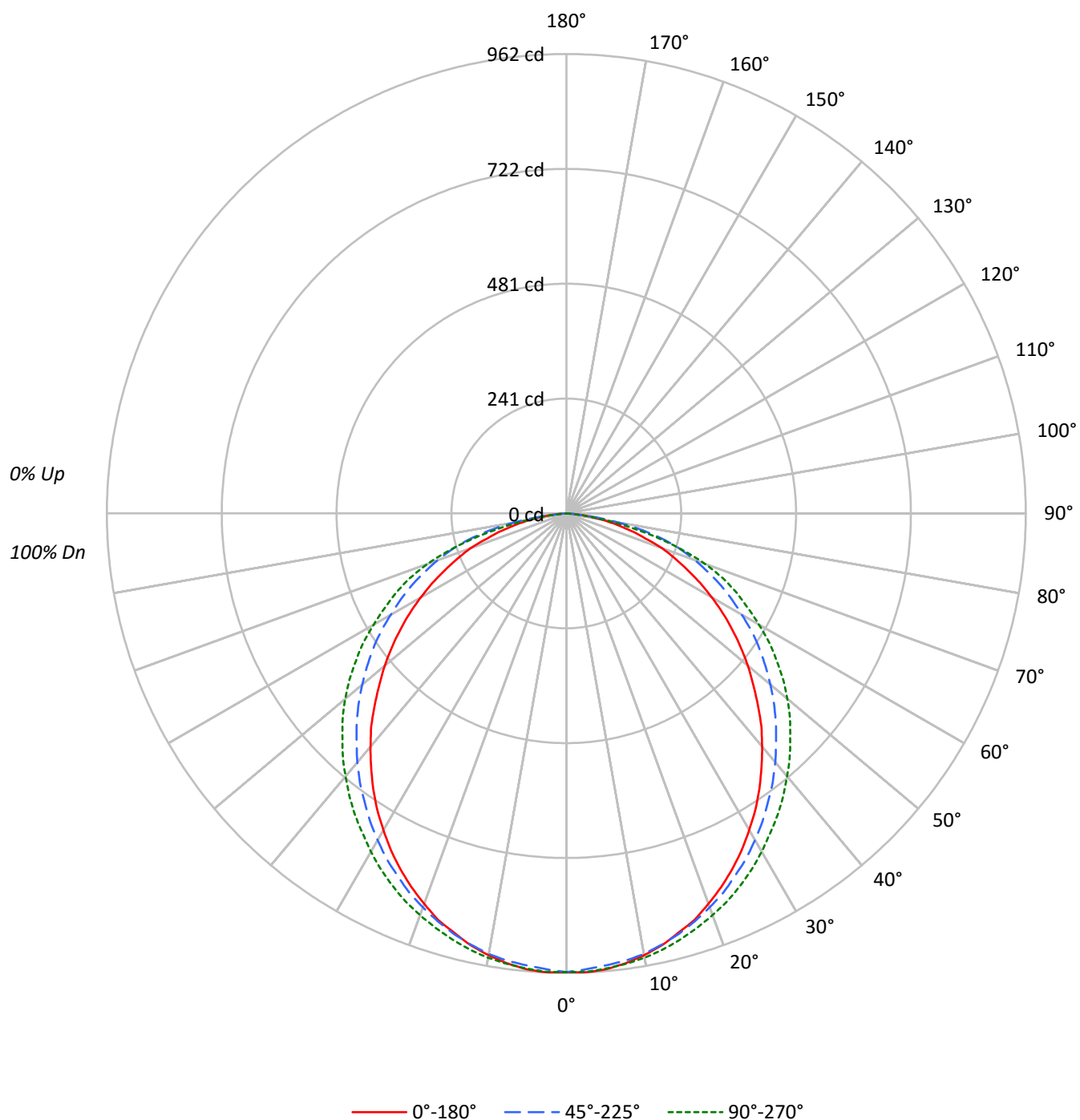
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2585	2585	2585
5°	2588	2566	2584
10°	2567	2559	2581
15°	2531	2539	2572
20°	2491	2514	2564
25°	2440	2484	2555
30°	2380	2454	2541
35°	2314	2419	2533
40°	2240	2390	2526
45°	2158	2361	2524
50°	2078	2335	2530
55°	1991	2316	2523
60°	1896	2284	2506
65°	1784	2277	2506
70°	1680	2257	2435
75°	1457	2205	2080
80°	1179	1777	1385
85°	784	618	411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	3.4
10°-20°	258.1	9.6
20°-30°	387.2	14.4
30°-40°	461.9	17.2
40°-50°	477.5	17.7
50°-60°	436.0	16.2
60°-70°	343.1	12.7
70°-80°	199.7	7.4
80°-90°	36.8	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°	736.1	27.4
0°-40°	1197.9	44.5
0°-60°	2111.4	78.5
0°-90°	2691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	958	955	950	958	957	91
15°	909	910	911	923	923	256
25°	822	826	837	857	861	378
35°	704	714	736	764	771	440
45°	567	586	620	655	663	438
55°	424	447	494	530	538	379
65°	280	310	358	386	394	278
75°	140	173	212	208	200	149
85°	25	36	20	16	13	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.6	960.6	960.6	960.6	960.6
2.5°	962.0	959.3	955.3	962.0	960.6
5°	958.0	955.3	950.0	958.0	956.6
7.5°	950.0	947.3	944.6	952.6	951.3
10°	939.3	938.0	936.6	946.0	944.6
12.5°	926.0	926.0	924.6	935.3	935.3
15°	908.6	909.9	911.3	923.3	923.3
17.5°	892.6	891.3	895.3	908.6	909.9
20°	869.9	872.6	877.9	893.9	895.3
22.5°	847.2	849.9	859.2	875.3	879.3
25°	821.9	825.9	836.6	856.6	860.6
27.5°	795.2	800.5	815.2	836.6	840.6
30°	765.8	773.9	789.9	813.9	817.9
32.5°	736.5	744.5	764.5	788.5	793.9
35°	704.5	713.8	736.5	764.5	771.2
37.5°	671.1	683.1	709.8	737.8	745.8
40°	637.8	651.1	680.5	709.8	719.1
42.5°	604.4	617.7	649.8	683.1	692.5
45°	567.0	585.7	620.4	655.1	663.1
47.5°	531.0	551.0	589.7	624.4	635.1
50°	496.3	516.3	557.7	593.7	604.4
52.5°	460.3	481.7	525.7	563.0	572.4
55°	424.3	447.0	493.7	529.7	537.7
57.5°	388.3	412.3	460.3	495.0	504.3
60°	352.2	377.6	424.3	459.0	465.6
62.5°	316.2	342.9	390.9	421.6	428.3
65°	280.2	309.5	357.6	385.6	393.6
67.5°	245.5	274.9	321.5	348.2	354.9
70°	213.5	240.2	286.9	306.9	309.5
72.5°	173.4	206.8	252.2	262.8	256.2
75°	140.1	173.4	212.1	208.1	200.1
77.5°	106.7	140.1	165.4	152.1	141.4
80°	76.1	109.4	114.7	94.7	89.4
82.5°	49.4	76.1	64.0	49.4	40.0
85°	25.4	36.0	20.0	16.0	13.3
87.5°	8.0	5.3	2.7	2.7	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)