

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: P307233

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-3000K**

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: P307233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 3000K 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: 2785.0 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

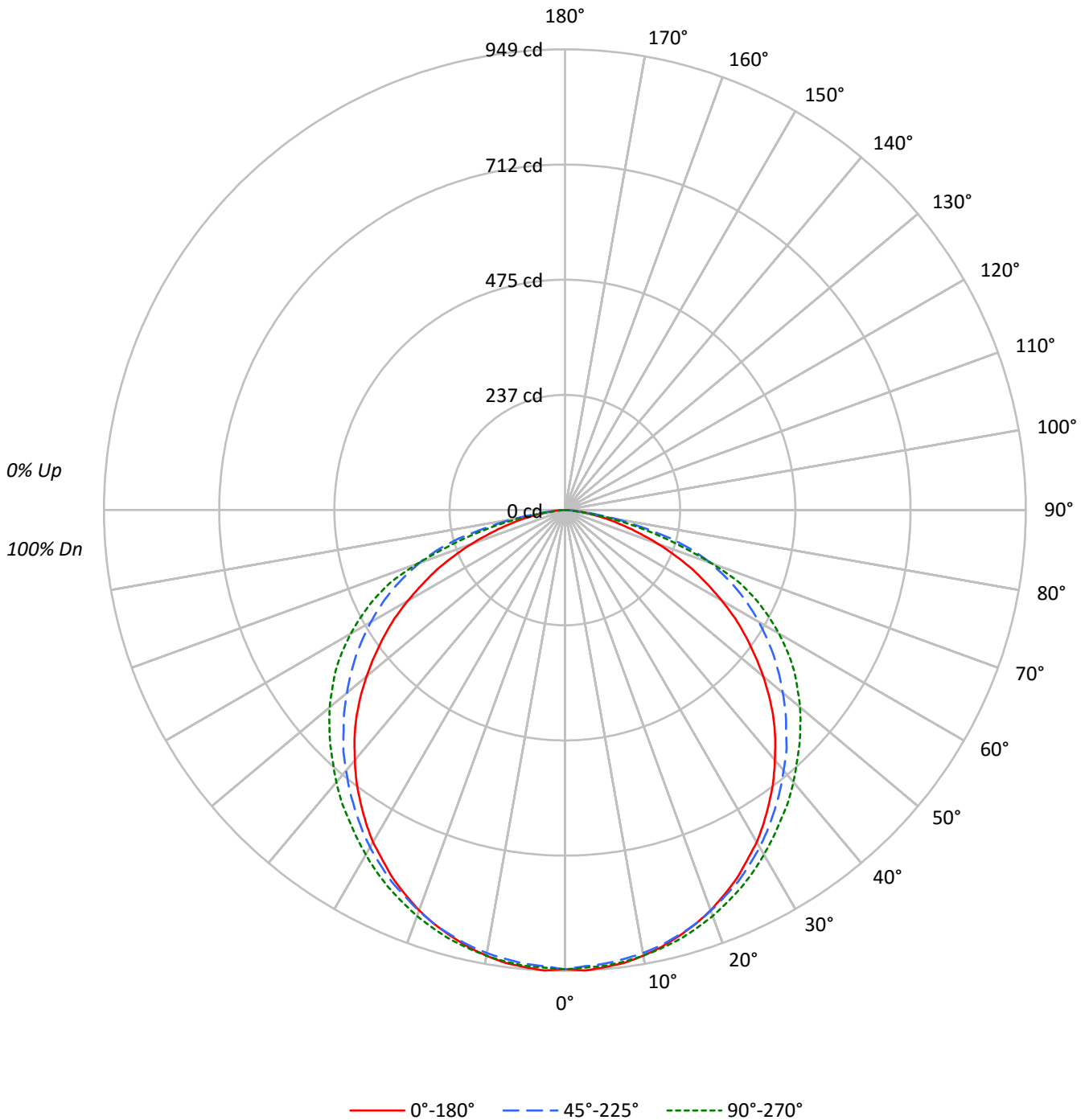
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2545	2545	2545
5°	2552	2534	2545
10°	2546	2532	2546
15°	2530	2525	2549
20°	2513	2515	2548
25°	2486	2507	2548
30°	2454	2493	2547
35°	2411	2474	2552
40°	2363	2461	2572
45°	2313	2453	2600
50°	2233	2453	2647
55°	2137	2465	2703
60°	2008	2484	2738
65°	1851	2509	2755
70°	1612	2515	2536
75°	1330	2340	2048
80°	1044	1683	1370
85°	812	648	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	3.2
10°-20°	256.9	9.2
20°-30°	390.2	14.0
30°-40°	472.8	17.0
40°-50°	498.2	17.9
50°-60°	465.1	16.7
60°-70°	371.7	13.3
70°-80°	204.5	7.3
80°-90°	36.1	1.3
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°	736.7	26.5
0°-40°	1209.4	43.4
0°-60°	2172.7	78.0
0°-90°	2785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	946	946	946	946	946	
5°	945	942	938	944	942	90
15°	908	908	906	915	915	256
25°	837	839	844	856	858	385
35°	734	741	753	772	777	459
45°	608	619	644	673	683	468
55°	455	478	525	562	576	407
65°	291	328	394	426	433	286
75°	128	183	225	202	197	138
85°	26	33	21	13	10	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	945.8	945.8	945.8	945.8	945.8
2.5°	949.3	946.7	940.5	945.8	943.2
5°	944.9	942.3	937.9	944.0	942.3
7.5°	940.5	937.0	932.7	939.7	937.9
10°	931.8	929.2	926.5	932.7	931.8
12.5°	921.3	920.4	917.8	924.8	923.9
15°	908.1	908.1	906.4	915.1	915.1
17.5°	894.1	893.3	894.1	903.8	902.9
20°	877.5	877.5	878.4	889.8	889.8
22.5°	857.4	858.2	860.9	874.9	874.0
25°	837.2	839.0	844.2	856.5	858.2
27.5°	812.7	817.1	823.2	838.1	839.8
30°	789.9	792.5	802.2	816.2	819.7
32.5°	762.8	768.0	778.5	794.3	798.7
35°	733.9	740.9	753.1	772.4	776.8
37.5°	705.0	711.1	727.7	747.9	755.8
40°	672.6	683.1	700.6	723.4	732.1
42.5°	641.0	651.6	675.2	698.8	706.7
45°	607.8	619.1	644.5	673.4	683.1
47.5°	571.0	584.1	616.5	647.2	657.7
50°	533.3	550.0	585.9	620.0	632.3
52.5°	493.9	514.9	556.1	592.0	603.4
55°	455.4	478.2	525.4	562.2	576.2
57.5°	416.0	440.5	493.9	536.0	543.8
60°	373.1	402.8	461.5	498.3	508.8
62.5°	331.0	365.2	428.2	463.3	472.0
65°	290.7	327.5	394.1	426.5	432.6
67.5°	247.0	290.7	356.4	386.2	388.0
70°	204.9	255.7	319.6	333.7	322.3
72.5°	163.8	218.1	276.7	265.3	255.7
75°	127.9	183.0	225.1	202.3	197.0
77.5°	94.6	149.8	161.1	148.9	139.2
80°	67.4	118.2	108.6	92.8	88.4
82.5°	46.4	74.4	59.6	46.4	40.3
85°	26.3	33.3	21.0	13.1	10.5
87.5°	11.4	7.9	4.4	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)