

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: P307367

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-CP187-W2A-U-2700K**

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: P307367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-RDP-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 2700K 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: 1544.0 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

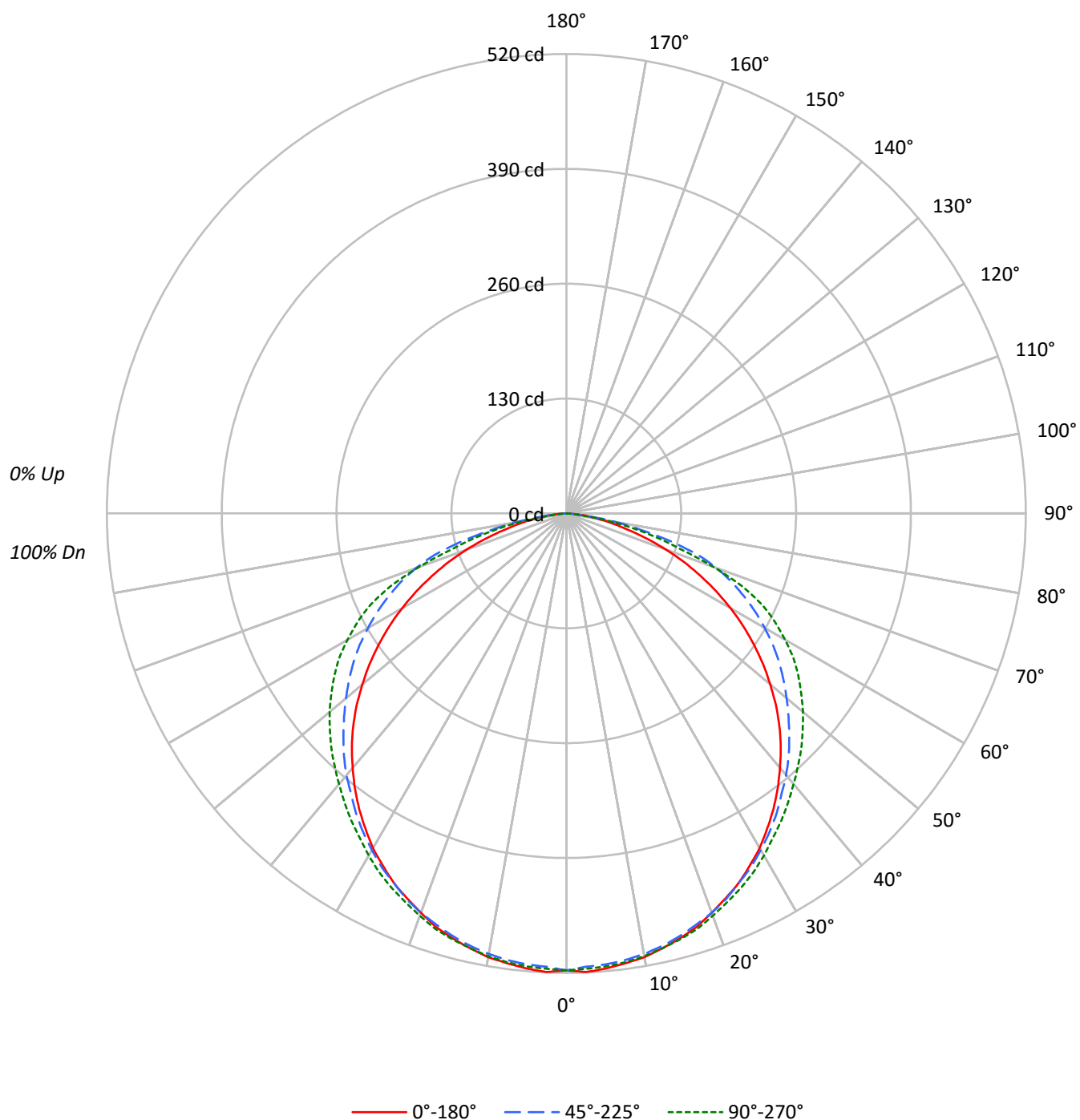
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		93	91	88		84
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		58
4	82	70	61	54	80	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1392	1392	1392
5°	1397	1384	1390
10°	1393	1383	1390
15°	1387	1380	1390
20°	1377	1377	1388
25°	1371	1371	1389
30°	1360	1367	1390
35°	1342	1362	1394
40°	1321	1359	1406
45°	1298	1358	1431
50°	1262	1363	1464
55°	1216	1380	1504
60°	1155	1395	1538
65°	1067	1412	1558
70°	948	1423	1394
75°	764	1279	1116
80°	598	897	728
85°	411	259	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	3.2
10°-20°	140.4	9.1
20°-30°	213.8	13.8
30°-40°	260.4	16.9
40°-50°	276.3	17.9
50°-60°	260.8	16.9
60°-70°	210.6	13.6
70°-80°	114.2	7.4
80°-90°	18.5	1.2
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°	403.2	26.1
0°-40°	663.7	43.0
0°-60°	1200.7	77.8
0°-90°	1544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1544.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	517	517	517	517	517	
5°	517	516	512	516	515	49
15°	498	497	495	499	499	140
25°	462	460	462	466	468	213
35°	409	411	415	423	424	255
45°	341	346	357	370	376	263
55°	259	270	294	313	321	232
65°	168	188	222	240	245	166
75°	74	107	123	111	107	80
85°	13	14	8	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	517.1	517.1	517.1	517.1	517.1
2.5°	519.5	517.1	513.5	517.1	515.9
5°	517.1	515.9	512.3	515.9	514.7
7.5°	513.5	513.5	509.9	512.3	512.3
10°	509.9	508.7	506.3	509.9	508.7
12.5°	503.9	502.7	501.5	505.1	503.9
15°	497.8	496.6	495.4	499.0	499.0
17.5°	490.6	489.4	488.2	493.0	493.0
20°	481.0	481.0	481.0	485.8	484.6
22.5°	471.3	471.3	472.5	477.3	476.1
25°	461.7	460.5	461.7	466.5	467.7
27.5°	449.6	450.8	452.0	456.9	458.1
30°	437.6	438.8	440.0	446.0	447.2
32.5°	423.1	425.5	427.9	435.2	435.2
35°	408.6	411.0	414.7	423.1	424.3
37.5°	393.0	395.4	400.2	409.8	412.3
40°	376.1	379.7	386.9	396.6	400.2
42.5°	359.2	364.0	372.5	383.3	388.1
45°	341.1	346.0	356.8	370.1	376.1
47.5°	321.8	327.9	341.1	358.0	362.8
50°	301.4	309.8	325.5	343.5	349.6
52.5°	280.9	290.5	309.8	329.1	335.1
55°	259.2	270.0	294.1	313.4	320.6
57.5°	237.5	249.5	277.2	297.7	305.0
60°	214.6	229.0	259.2	279.7	285.7
62.5°	191.7	208.5	241.1	261.6	266.4
65°	167.6	188.0	221.8	239.9	244.7
67.5°	144.7	168.8	202.5	215.8	215.8
70°	120.5	147.1	180.8	184.4	177.2
72.5°	96.4	126.6	156.7	143.4	137.4
75°	73.5	107.3	123.0	110.9	107.3
77.5°	55.4	86.8	86.8	79.6	77.1
80°	38.6	66.3	57.9	50.6	47.0
82.5°	25.3	37.4	30.1	24.1	20.5
85°	13.3	14.5	8.4	7.2	6.0
87.5°	4.8	2.4	1.2	2.4	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)