

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: P307817

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-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: P307817
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: 14FCZ2-20-UNV-L82765-S-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 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: 1743.0 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

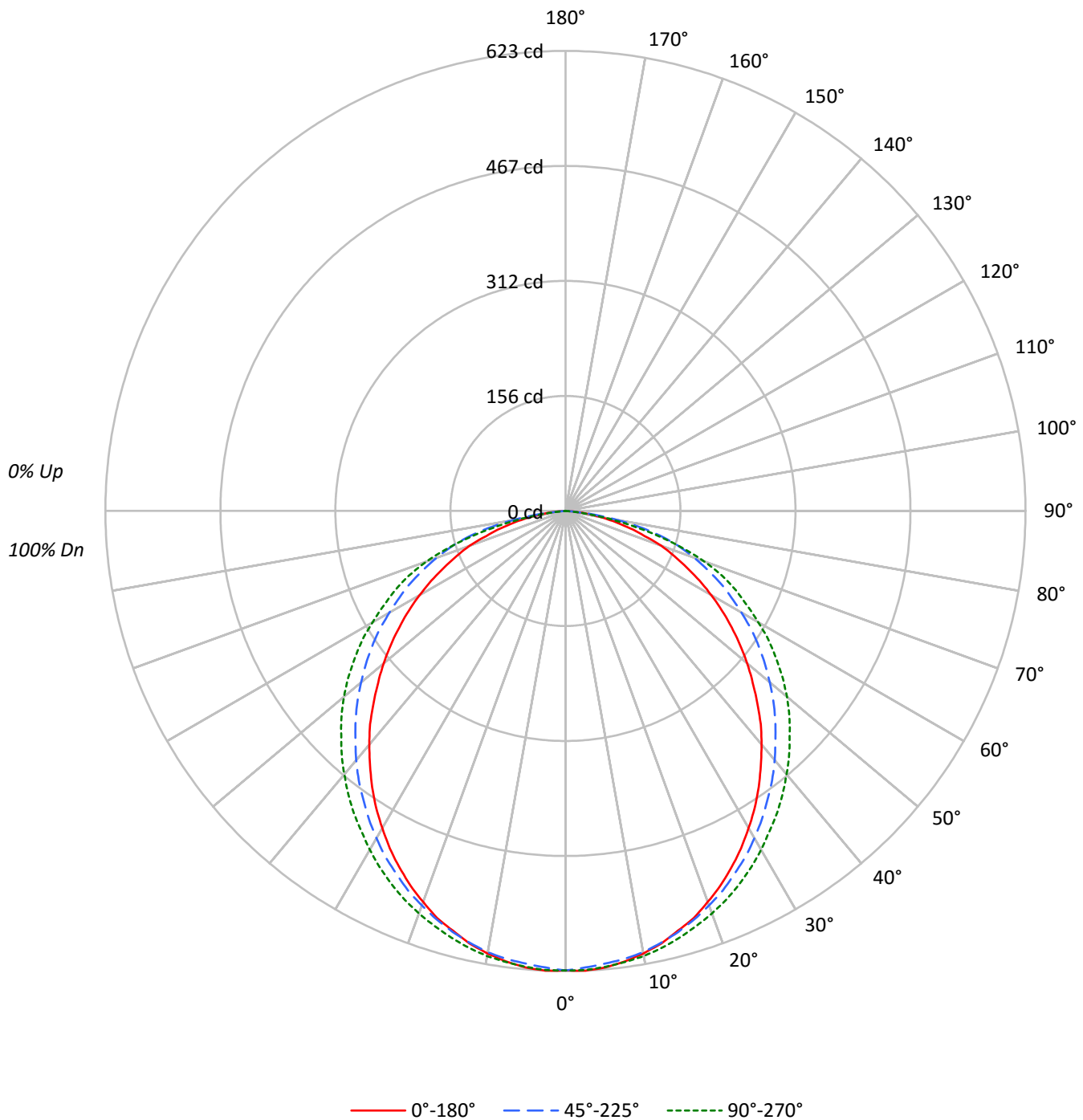
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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	94	91	89	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30		
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27		
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1674	1674	1674
5°	1676	1662	1674
10°	1662	1658	1672
15°	1640	1644	1666
20°	1614	1628	1661
25°	1580	1609	1655
30°	1541	1590	1646
35°	1499	1567	1641
40°	1451	1548	1636
45°	1398	1529	1635
50°	1346	1512	1639
55°	1289	1500	1634
60°	1228	1479	1623
65°	1156	1475	1623
70°	1088	1462	1578
75°	943	1429	1347
80°	764	1151	897
85°	506	401	266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	3.4
10°-20°	167.2	9.6
20°-30°	250.8	14.4
30°-40°	299.2	17.2
40°-50°	309.3	17.7
50°-60°	282.4	16.2
60°-70°	222.2	12.7
70°-80°	129.3	7.4
80°-90°	23.8	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°	476.7	27.4
0°-40°	775.9	44.5
0°-60°	1367.6	78.5
0°-90°	1743.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1743.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	620	619	615	620	620	59
15°	588	589	590	598	598	166
25°	532	535	542	555	557	245
35°	456	462	477	495	500	285
45°	367	379	402	424	430	284
55°	275	290	320	343	348	246
65°	182	200	232	250	255	180
75°	91	112	137	135	130	96
85°	16	23	13	10	9	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	622.2	622.2	622.2	622.2	622.2
2.5°	623.1	621.4	618.8	623.1	622.2
5°	620.5	618.8	615.3	620.5	619.6
7.5°	615.3	613.6	611.9	617.0	616.2
10°	608.4	607.5	606.7	612.7	611.9
12.5°	599.8	599.8	598.9	605.8	605.8
15°	588.5	589.4	590.2	598.0	598.0
17.5°	578.1	577.3	579.9	588.5	589.4
20°	563.5	565.2	568.6	579.0	579.9
22.5°	548.8	550.5	556.5	566.9	569.5
25°	532.3	534.9	541.9	554.8	557.4
27.5°	515.1	518.5	528.0	541.9	544.4
30°	496.0	501.2	511.6	527.2	529.8
32.5°	477.0	482.2	495.2	510.7	514.2
35°	456.3	462.3	477.0	495.2	499.5
37.5°	434.7	442.5	459.8	477.9	483.1
40°	413.1	421.7	440.7	459.8	465.8
42.5°	391.5	400.1	420.9	442.5	448.5
45°	367.3	379.4	401.9	424.3	429.5
47.5°	344.0	356.9	382.0	404.4	411.4
50°	321.5	334.4	361.2	384.6	391.5
52.5°	298.1	312.0	340.5	364.7	370.7
55°	274.8	289.5	319.8	343.1	348.3
57.5°	251.5	267.0	298.1	320.6	326.7
60°	228.1	244.6	274.8	297.3	301.6
62.5°	204.8	222.1	253.2	273.1	277.4
65°	181.5	200.5	231.6	249.8	254.9
67.5°	159.0	178.0	208.3	225.6	229.9
70°	138.3	155.6	185.8	198.8	200.5
72.5°	112.3	134.0	163.3	170.2	165.9
75°	90.7	112.3	137.4	134.8	129.6
77.5°	69.1	90.7	107.2	98.5	91.6
80°	49.3	70.9	74.3	61.4	57.9
82.5°	32.0	49.3	41.5	32.0	25.9
85°	16.4	23.3	13.0	10.4	8.6
87.5°	5.2	3.5	1.7	1.7	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)