

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: P307097

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-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: P307097
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: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 1825.0 lumens
Efficiency: N/A
Efficacy: 76.7 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

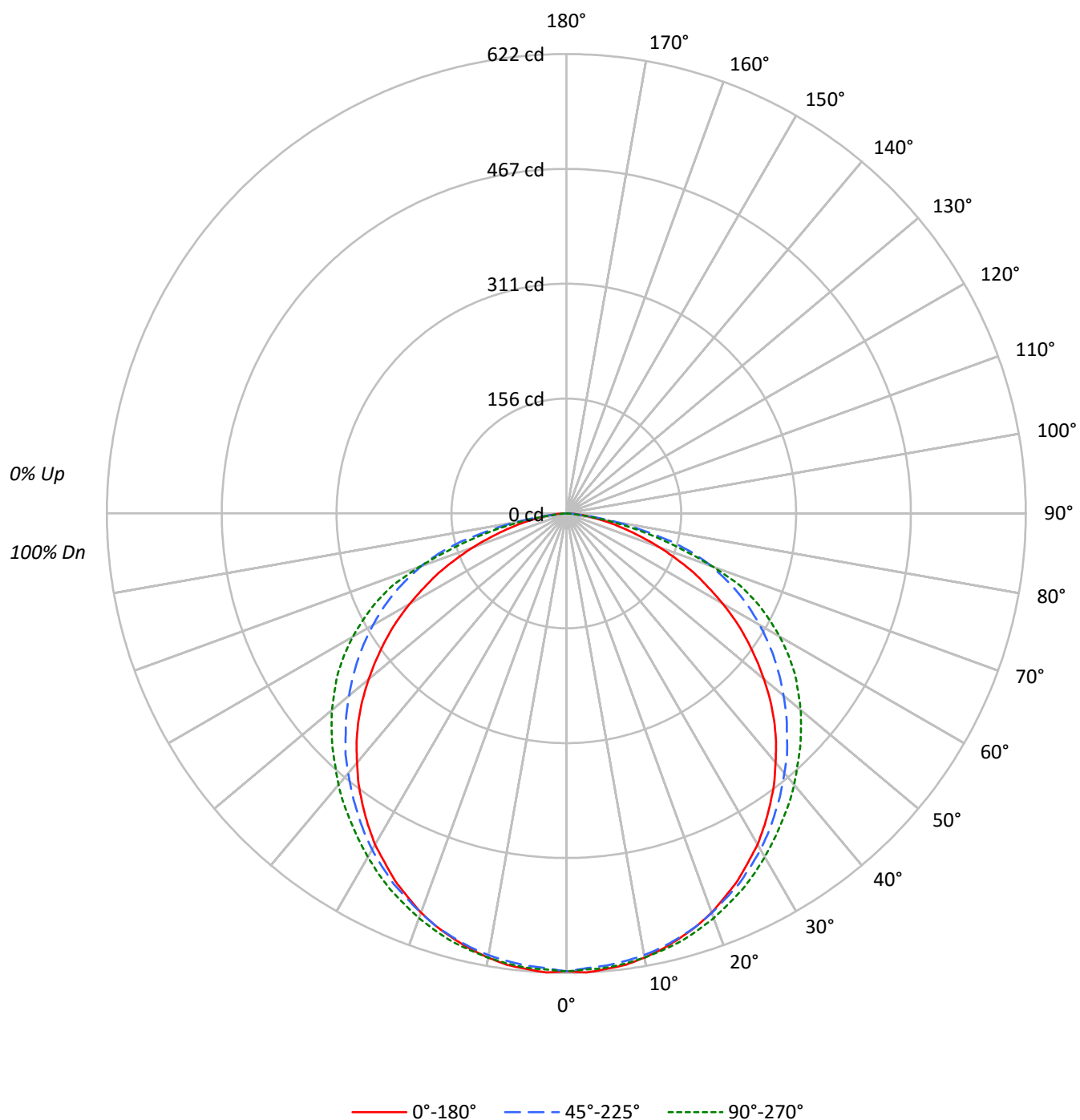
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1668	1668	1668
5°	1673	1660	1668
10°	1668	1659	1668
15°	1658	1655	1671
20°	1647	1648	1670
25°	1629	1643	1670
30°	1608	1633	1669
35°	1580	1621	1672
40°	1548	1613	1685
45°	1516	1607	1703
50°	1463	1607	1734
55°	1400	1615	1772
60°	1316	1628	1794
65°	1213	1644	1805
70°	1057	1648	1662
75°	871	1534	1342
80°	685	1103	899
85°	531	426	213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	3.2
10°-20°	168.4	9.2
20°-30°	255.7	14.0
30°-40°	309.8	17.0
40°-50°	326.5	17.9
50°-60°	304.8	16.7
60°-70°	243.6	13.3
70°-80°	134.0	7.3
80°-90°	23.7	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°	482.7	26.5
0°-40°	792.5	43.4
0°-60°	1423.8	78.0
0°-90°	1825.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1825.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	619	618	615	619	618	59
15°	595	595	594	600	600	168
25°	549	550	553	561	562	253
35°	481	486	494	506	509	301
45°	398	406	422	441	448	306
55°	298	313	344	368	378	266
65°	190	215	258	280	284	188
75°	84	120	148	133	129	90
85°	17	22	14	9	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	619.8	619.8	619.8	619.8	619.8
2.5°	622.1	620.4	616.3	619.8	618.1
5°	619.2	617.5	614.6	618.6	617.5
7.5°	616.3	614.0	611.2	615.8	614.6
10°	610.6	608.9	607.2	611.2	610.6
12.5°	603.7	603.1	601.4	606.0	605.4
15°	595.1	595.1	594.0	599.7	599.7
17.5°	585.9	585.3	585.9	592.2	591.7
20°	575.0	575.0	575.6	583.1	583.1
22.5°	561.8	562.4	564.1	573.3	572.7
25°	548.6	549.8	553.2	561.2	562.4
27.5°	532.6	535.4	539.4	549.2	550.3
30°	517.6	519.4	525.7	534.8	537.1
32.5°	499.8	503.3	510.2	520.5	523.4
35°	480.9	485.5	493.5	506.2	509.0
37.5°	462.0	466.0	476.9	490.1	495.2
40°	440.7	447.6	459.1	474.0	479.8
42.5°	420.1	427.0	442.5	457.9	463.1
45°	398.3	405.7	422.4	441.3	447.6
47.5°	374.2	382.8	404.0	424.1	431.0
50°	349.5	360.4	383.9	406.3	414.3
52.5°	323.7	337.4	364.4	387.9	395.4
55°	298.4	313.3	344.3	368.4	377.6
57.5°	272.6	288.7	323.7	351.2	356.4
60°	244.5	264.0	302.4	326.5	333.4
62.5°	216.9	239.3	280.6	303.6	309.3
65°	190.5	214.6	258.2	279.5	283.5
67.5°	161.8	190.5	233.6	253.1	254.2
70°	134.3	167.6	209.5	218.6	211.2
72.5°	107.3	142.9	181.3	173.9	167.6
75°	83.8	119.9	147.5	132.6	129.1
77.5°	62.0	98.1	105.6	97.6	91.2
80°	44.2	77.5	71.2	60.8	58.0
82.5°	30.4	48.8	39.0	30.4	26.4
85°	17.2	21.8	13.8	8.6	6.9
87.5°	7.5	5.2	2.9	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)