

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: P307104

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5700K**

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: P307104
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-5700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5700K 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: 2073.0 lumens
Efficiency: N/A
Efficacy: 84.6 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

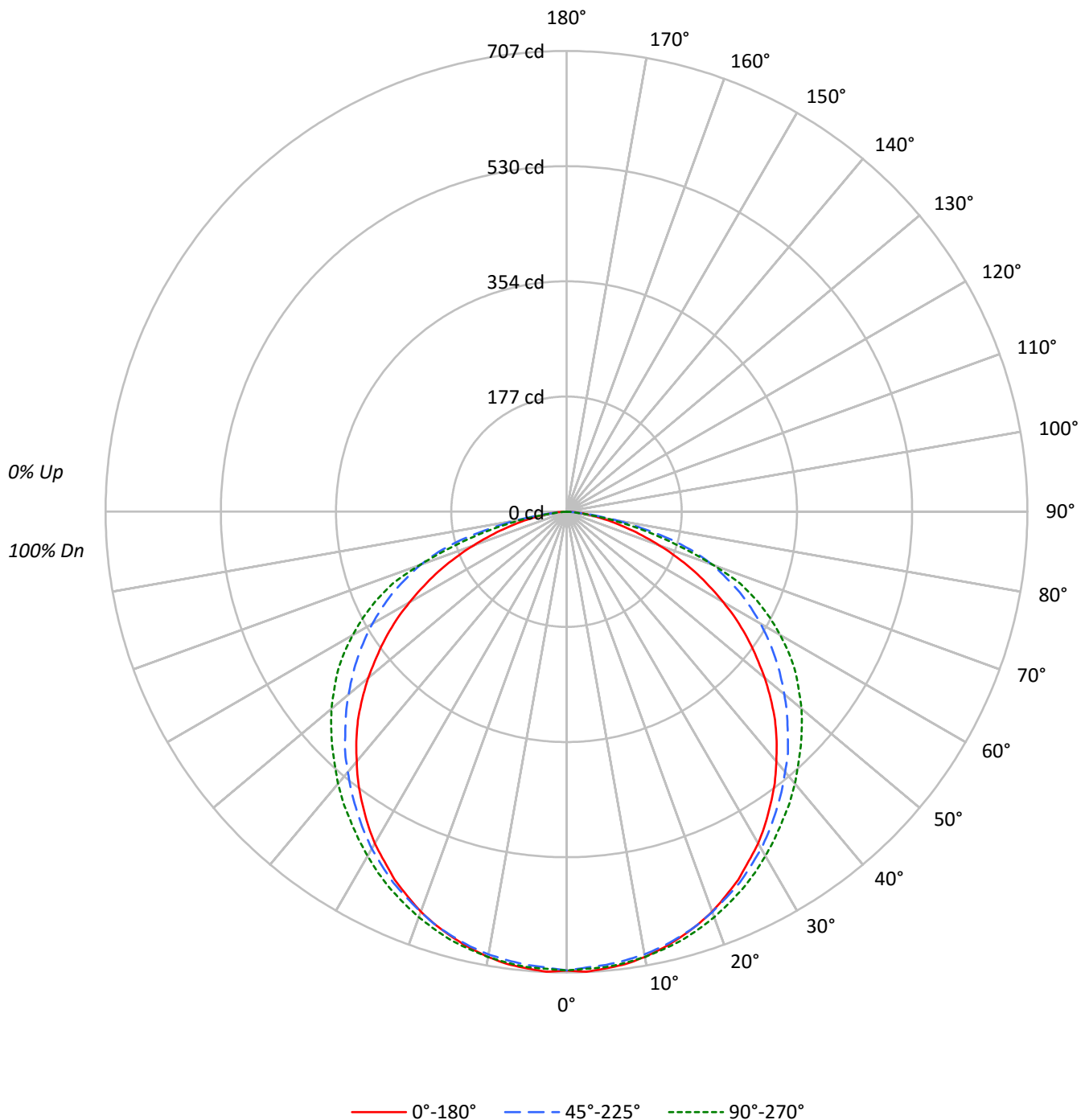
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		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°	1894	1894	1894
5°	1900	1886	1895
10°	1895	1885	1895
15°	1883	1880	1898
20°	1871	1872	1897
25°	1850	1866	1897
30°	1827	1855	1896
35°	1795	1842	1899
40°	1759	1832	1914
45°	1722	1826	1935
50°	1662	1826	1970
55°	1590	1835	2012
60°	1495	1849	2038
65°	1378	1868	2050
70°	1200	1872	1888
75°	990	1742	1525
80°	778	1252	1020
85°	605	482	241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	3.2
10°-20°	191.2	9.2
20°-30°	290.4	14.0
30°-40°	351.9	17.0
40°-50°	370.8	17.9
50°-60°	346.2	16.7
60°-70°	276.7	13.3
70°-80°	152.2	7.3
80°-90°	26.9	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°	548.3	26.5
0°-40°	900.2	43.4
0°-60°	1617.2	78.0
0°-90°	2073.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2073.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	703	701	698	703	701	67
15°	676	676	675	681	681	191
25°	623	624	628	638	639	287
35°	546	552	561	575	578	342
45°	452	461	480	501	508	348
55°	339	356	391	418	429	303
65°	216	244	293	318	322	213
75°	95	136	168	151	147	102
85°	20	25	16	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.0	704.0	704.0	704.0	704.0
2.5°	706.6	704.7	700.1	704.0	702.0
5°	703.3	701.4	698.1	702.7	701.4
7.5°	700.1	697.5	694.2	699.4	698.1
10°	693.6	691.6	689.7	694.2	693.6
12.5°	685.7	685.1	683.1	688.4	687.7
15°	676.0	676.0	674.7	681.2	681.2
17.5°	665.5	664.9	665.5	672.7	672.1
20°	653.2	653.2	653.8	662.3	662.3
22.5°	638.2	638.8	640.8	651.2	650.5
25°	623.2	624.5	628.4	637.5	638.8
27.5°	604.9	608.2	612.7	623.8	625.1
30°	588.0	589.9	597.1	607.5	610.1
32.5°	567.8	571.7	579.5	591.2	594.5
35°	546.3	551.5	560.6	574.9	578.2
37.5°	524.7	529.3	541.7	556.7	562.5
40°	500.6	508.4	521.5	538.4	544.9
42.5°	477.2	485.0	502.6	520.2	526.0
45°	452.4	460.9	479.8	501.3	508.4
47.5°	425.0	434.8	458.9	481.7	489.5
50°	397.0	409.4	436.1	461.5	470.6
52.5°	367.6	383.3	413.9	440.7	449.1
55°	339.0	355.9	391.1	418.5	428.9
57.5°	309.6	327.9	367.6	398.9	404.8
60°	277.7	299.9	343.5	370.9	378.7
62.5°	246.4	271.8	318.8	344.8	351.3
65°	216.4	243.8	293.3	317.5	322.0
67.5°	183.8	216.4	265.3	287.5	288.8
70°	152.5	190.3	237.9	248.4	239.9
72.5°	121.9	162.3	206.0	197.5	190.3
75°	95.2	136.2	167.5	150.6	146.7
77.5°	70.4	111.5	119.9	110.8	103.6
80°	50.2	88.0	80.8	69.1	65.8
82.5°	34.5	55.4	44.3	34.5	30.0
85°	19.6	24.8	15.6	9.8	7.8
87.5°	8.5	5.9	3.3	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)