

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: P307419

Luminaire Tested: **14FCZ2-35-UNV-L82765-RDP-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: P307419
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: 14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 2109.0 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

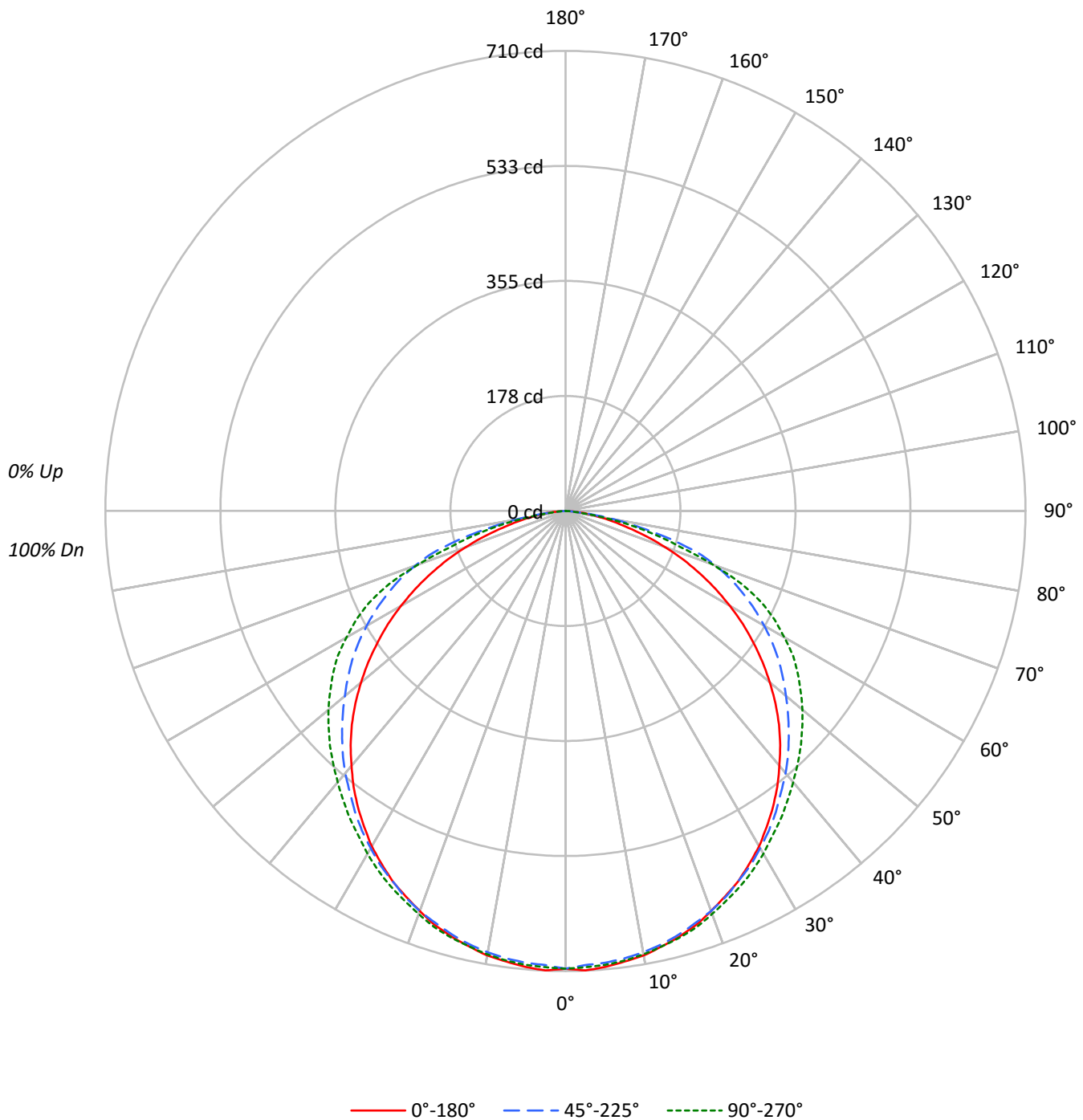
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1901	1901	1901
5°	1908	1890	1899
10°	1903	1890	1899
15°	1894	1885	1899
20°	1881	1881	1895
25°	1872	1872	1897
30°	1857	1867	1898
35°	1834	1861	1904
40°	1805	1857	1920
45°	1773	1855	1955
50°	1723	1861	1999
55°	1661	1885	2055
60°	1577	1905	2100
65°	1457	1929	2128
70°	1296	1943	1904
75°	1044	1746	1523
80°	817	1224	995
85°	559	355	253



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	3.2
10°-20°	191.8	9.1
20°-30°	292.1	13.8
30°-40°	355.7	16.9
40°-50°	377.4	17.9
50°-60°	356.2	16.9
60°-70°	287.6	13.6
70°-80°	156.0	7.4
80°-90°	25.2	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°	550.8	26.1
0°-40°	906.5	43.0
0°-60°	1640.1	77.8
0°-90°	2109.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2109.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	706	705	700	705	703	67
15°	680	678	677	682	682	192
25°	631	629	631	637	639	290
35°	558	562	566	578	580	349
45°	466	473	487	506	514	359
55°	354	369	402	428	438	316
65°	229	257	303	328	334	227
75°	100	146	168	152	146	110
85°	18	20	12	10	8	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.4	706.4	706.4	706.4	706.4
2.5°	709.7	706.4	701.4	706.4	704.7
5°	706.4	704.7	699.8	704.7	703.1
7.5°	701.4	701.4	696.5	699.8	699.8
10°	696.5	694.8	691.5	696.5	694.8
12.5°	688.2	686.6	685.0	689.9	688.2
15°	680.0	678.4	676.7	681.7	681.7
17.5°	670.1	668.5	666.8	673.4	673.4
20°	657.0	657.0	657.0	663.5	661.9
22.5°	643.8	643.8	645.4	652.0	650.4
25°	630.6	629.0	630.6	637.2	638.9
27.5°	614.2	615.8	617.4	624.0	625.7
30°	597.7	599.3	601.0	609.2	610.9
32.5°	577.9	581.2	584.5	594.4	594.4
35°	558.2	561.5	566.4	577.9	579.6
37.5°	536.8	540.1	546.6	559.8	563.1
40°	513.7	518.7	528.5	541.7	546.6
42.5°	490.7	497.2	508.8	523.6	530.2
45°	466.0	472.6	487.4	505.5	513.7
47.5°	439.6	447.9	466.0	489.0	495.6
50°	411.6	423.2	444.6	469.3	477.5
52.5°	383.6	396.8	423.2	449.5	457.7
55°	354.0	368.8	401.8	428.1	438.0
57.5°	324.4	340.8	378.7	406.7	416.6
60°	293.1	312.8	354.0	382.0	390.2
62.5°	261.8	284.8	329.3	357.3	363.9
65°	228.9	256.9	303.0	327.7	334.2
67.5°	197.6	230.5	276.6	294.7	294.7
70°	164.7	200.9	247.0	251.9	242.0
72.5°	131.7	172.9	214.0	195.9	187.7
75°	100.4	146.5	167.9	151.5	146.5
77.5°	75.7	118.5	118.5	108.7	105.4
80°	52.7	90.6	79.0	69.2	64.2
82.5°	34.6	51.0	41.2	32.9	28.0
85°	18.1	19.8	11.5	9.9	8.2
87.5°	6.6	3.3	1.6	3.3	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)