

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: P307416

Luminaire Tested: **14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-4500K**

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: P307416
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-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 2055.0 lumens
Efficiency: N/A
Efficacy: 68.3 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

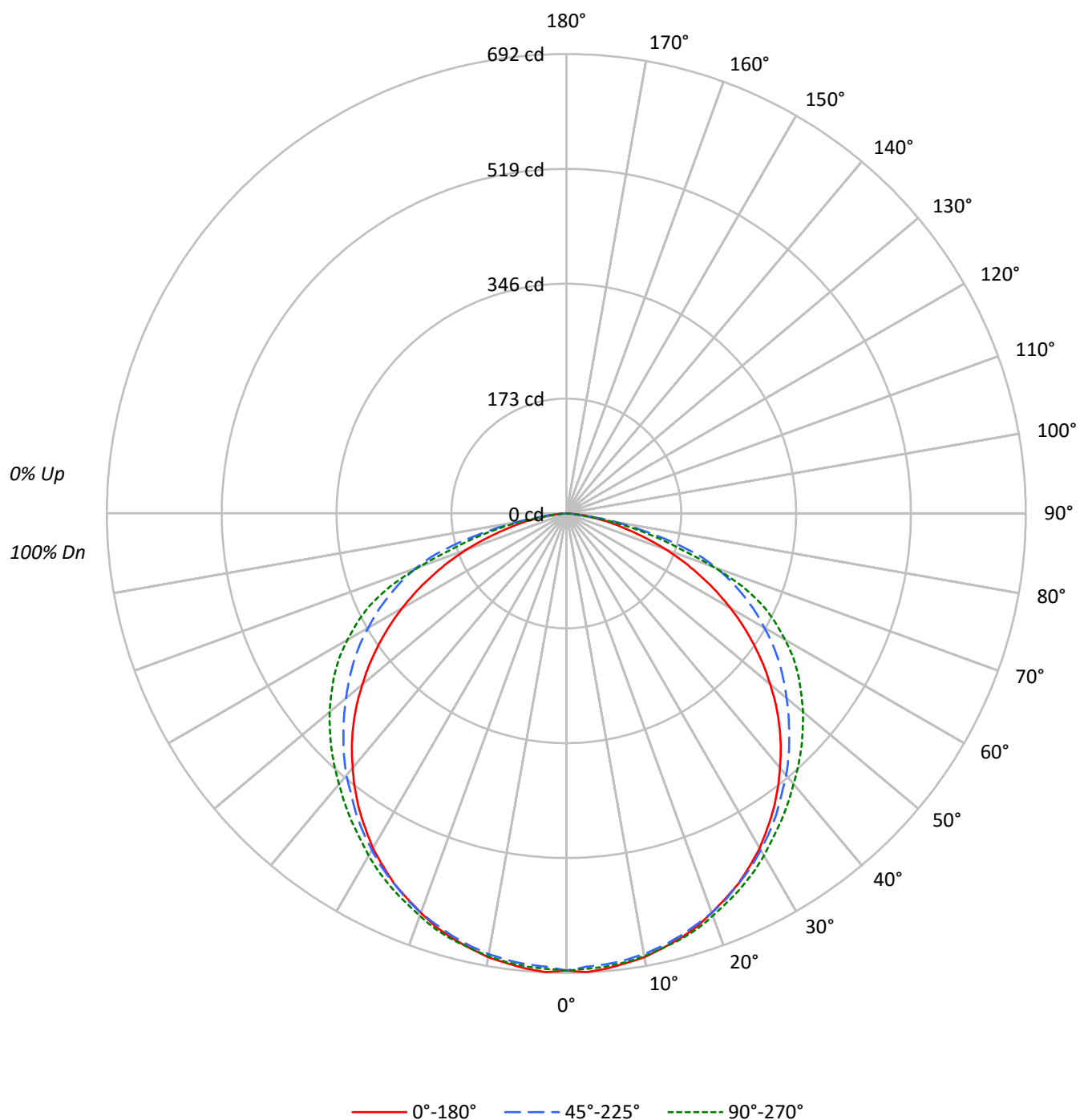
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1852	1852	1852
5°	1859	1842	1851
10°	1854	1841	1850
15°	1846	1837	1850
20°	1833	1833	1847
25°	1825	1825	1848
30°	1810	1820	1849
35°	1787	1813	1855
40°	1759	1809	1871
45°	1728	1807	1905
50°	1679	1814	1948
55°	1618	1837	2002
60°	1537	1856	2046
65°	1420	1880	2074
70°	1262	1894	1855
75°	1018	1701	1485
80°	795	1193	970
85°	543	346	247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.2
10°-20°	186.9	9.1
20°-30°	284.6	13.8
30°-40°	346.6	16.9
40°-50°	367.8	17.9
50°-60°	347.1	16.9
60°-70°	280.2	13.6
70°-80°	152.0	7.4
80°-90°	24.6	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°	536.7	26.1
0°-40°	883.3	43.0
0°-60°	1598.1	77.8
0°-90°	2055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	688	687	682	687	685	65
15°	663	661	659	664	664	187
25°	614	613	614	621	622	283
35°	544	547	552	563	565	340
45°	454	460	475	492	501	350
55°	345	359	392	417	427	308
65°	223	250	295	319	326	221
75°	98	143	164	148	143	107
85°	18	19	11	10	8	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.3	688.3	688.3	688.3	688.3
2.5°	691.5	688.3	683.5	688.3	686.7
5°	688.3	686.7	681.9	686.7	685.1
7.5°	683.5	683.5	678.6	681.9	681.9
10°	678.6	677.0	673.8	678.6	677.0
12.5°	670.6	669.0	667.4	672.2	670.6
15°	662.6	661.0	659.4	664.2	664.2
17.5°	653.0	651.4	649.8	656.2	656.2
20°	640.1	640.1	640.1	646.6	645.0
22.5°	627.3	627.3	628.9	635.3	633.7
25°	614.5	612.9	614.5	620.9	622.5
27.5°	598.4	600.0	601.6	608.1	609.7
30°	582.4	584.0	585.6	593.6	595.2
32.5°	563.1	566.3	569.5	579.2	579.2
35°	543.9	547.1	551.9	563.1	564.7
37.5°	523.0	526.2	532.6	545.5	548.7
40°	500.6	505.4	515.0	527.8	532.6
42.5°	478.1	484.5	495.7	510.2	516.6
45°	454.0	460.5	474.9	492.5	500.6
47.5°	428.4	436.4	454.0	476.5	482.9
50°	401.1	412.3	433.2	457.2	465.3
52.5°	373.8	386.7	412.3	438.0	446.0
55°	344.9	359.4	391.5	417.1	426.8
57.5°	316.1	332.1	369.0	396.3	405.9
60°	285.6	304.8	344.9	372.2	380.2
62.5°	255.1	277.6	320.9	348.1	354.6
65°	223.0	250.3	295.2	319.3	325.7
67.5°	192.5	224.6	269.5	287.2	287.2
70°	160.4	195.7	240.7	245.5	235.8
72.5°	128.3	168.5	208.6	190.9	182.9
75°	97.9	142.8	163.6	147.6	142.8
77.5°	73.8	115.5	115.5	105.9	102.7
80°	51.3	88.2	77.0	67.4	62.6
82.5°	33.7	49.7	40.1	32.1	27.3
85°	17.6	19.3	11.2	9.6	8.0
87.5°	6.4	3.2	1.6	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)