

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: P307414

Luminaire Tested: **14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-3500K**

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: P307414
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 1976.0 lumens
Efficiency: N/A
Efficacy: 66.8 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

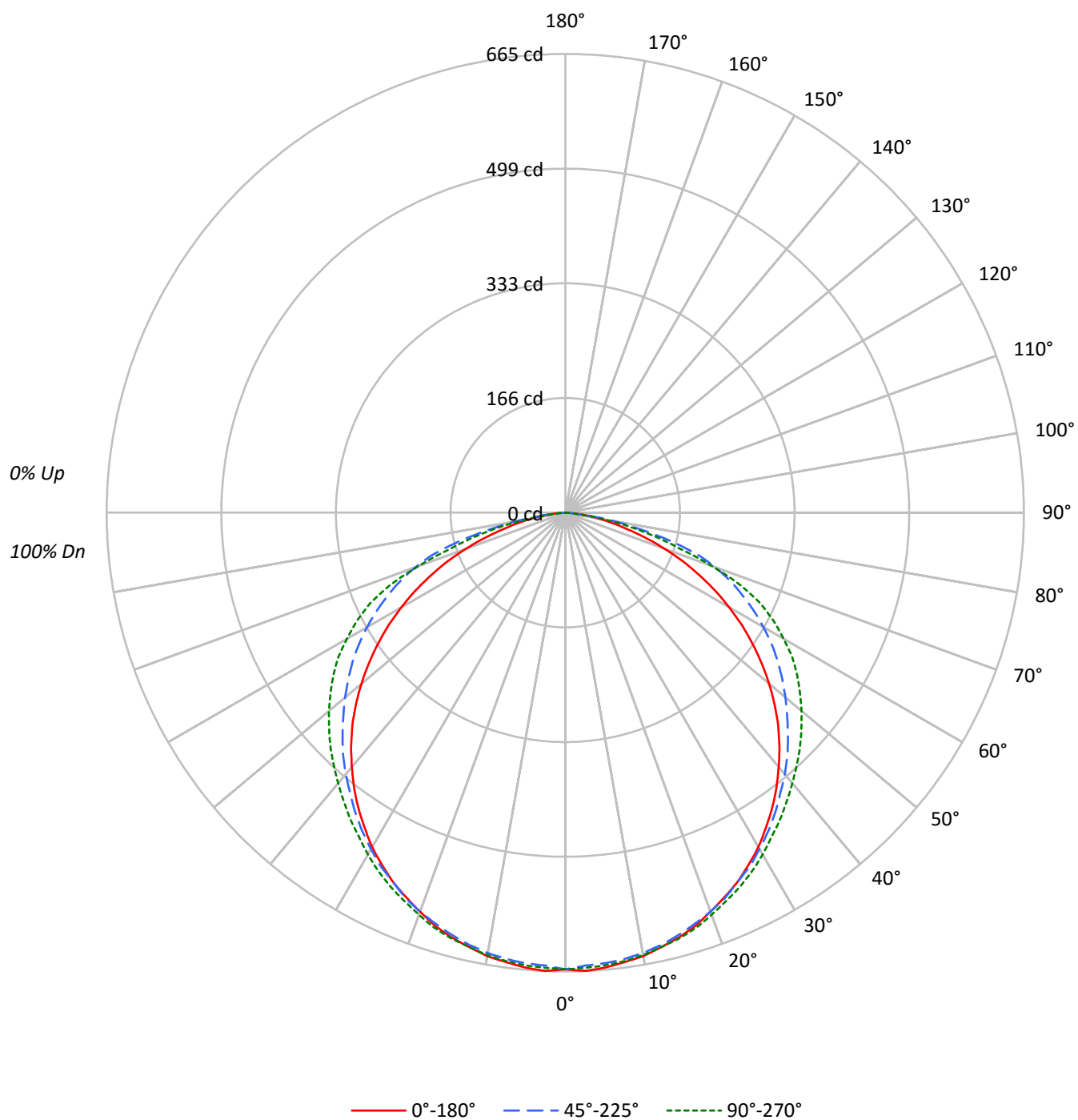
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1781	1781	1781
5°	1788	1771	1779
10°	1783	1770	1779
15°	1775	1766	1779
20°	1763	1763	1776
25°	1754	1754	1777
30°	1740	1750	1778
35°	1718	1743	1784
40°	1691	1740	1799
45°	1662	1738	1832
50°	1615	1744	1873
55°	1556	1766	1925
60°	1478	1785	1968
65°	1365	1808	1994
70°	1214	1821	1784
75°	978	1637	1428
80°	766	1147	933
85°	525	333	238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	3.2
10°-20°	179.7	9.1
20°-30°	273.7	13.8
30°-40°	333.3	16.9
40°-50°	353.6	17.9
50°-60°	333.7	16.9
60°-70°	269.5	13.6
70°-80°	146.2	7.4
80°-90°	23.7	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°	516.0	26.1
0°-40°	849.3	43.0
0°-60°	1536.7	77.8
0°-90°	1976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	662	660	656	660	659	63
15°	637	636	634	639	639	180
25°	591	589	591	597	599	272
35°	523	526	531	542	543	327
45°	437	443	457	474	481	336
55°	332	346	376	401	410	296
65°	214	241	284	307	313	212
75°	94	137	157	142	137	103
85°	17	18	11	9	8	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	661.8	661.8	661.8	661.8	661.8
2.5°	664.9	661.8	657.2	661.8	660.3
5°	661.8	660.3	655.6	660.3	658.7
7.5°	657.2	657.2	652.6	655.6	655.6
10°	652.6	651.0	647.9	652.6	651.0
12.5°	644.8	643.3	641.8	646.4	644.8
15°	637.1	635.6	634.0	638.7	638.7
17.5°	627.9	626.3	624.8	631.0	631.0
20°	615.5	615.5	615.5	621.7	620.2
22.5°	603.2	603.2	604.7	610.9	609.4
25°	590.8	589.3	590.8	597.0	598.6
27.5°	575.4	577.0	578.5	584.7	586.2
30°	560.0	561.5	563.1	570.8	572.3
32.5°	541.5	544.6	547.7	556.9	556.9
35°	523.0	526.1	530.7	541.5	543.0
37.5°	502.9	506.0	512.2	524.5	527.6
40°	481.3	485.9	495.2	507.5	512.2
42.5°	459.7	465.9	476.7	490.6	496.7
45°	436.6	442.8	456.6	473.6	481.3
47.5°	411.9	419.6	436.6	458.2	464.3
50°	385.7	396.5	416.5	439.7	447.4
52.5°	359.4	371.8	396.5	421.2	428.9
55°	331.7	345.6	376.4	401.1	410.4
57.5°	303.9	319.3	354.8	381.0	390.3
60°	274.6	293.1	331.7	357.9	365.6
62.5°	245.3	266.9	308.5	334.8	340.9
65°	214.4	240.7	283.9	307.0	313.2
67.5°	185.1	216.0	259.2	276.1	276.1
70°	154.3	188.2	231.4	236.0	226.8
72.5°	123.4	162.0	200.5	183.6	175.9
75°	94.1	137.3	157.4	141.9	137.3
77.5°	71.0	111.1	111.1	101.8	98.7
80°	49.4	84.8	74.0	64.8	60.2
82.5°	32.4	47.8	38.6	30.9	26.2
85°	17.0	18.5	10.8	9.3	7.7
87.5°	6.2	3.1	1.5	3.1	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)