

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: P308500

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-6500K**

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: P308500
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 2026.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

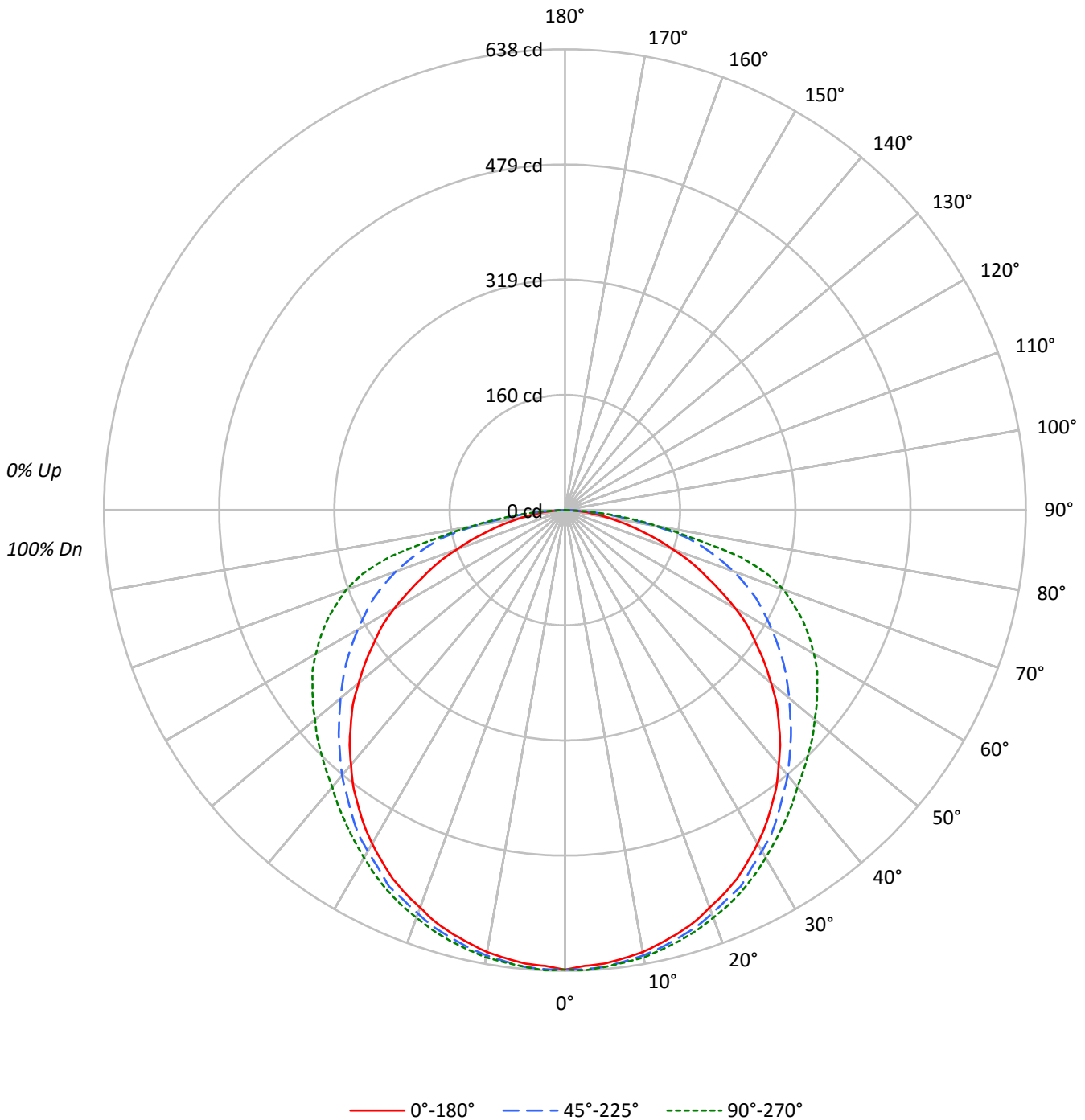
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1713	1713	1713
5°	1703	1715	1715
10°	1698	1711	1718
15°	1690	1707	1719
20°	1677	1703	1720
25°	1673	1708	1726
30°	1658	1695	1727
35°	1640	1689	1738
40°	1618	1686	1759
45°	1594	1684	1815
50°	1560	1697	1891
55°	1517	1734	2000
60°	1468	1781	2141
65°	1366	1869	2316
70°	1255	1958	2533
75°	1100	2061	2619
80°	947	1963	2055
85°	827	1426	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	3.0
10°-20°	172.8	8.5
20°-30°	263.7	13.0
30°-40°	322.0	15.9
40°-50°	344.3	17.0
50°-60°	332.3	16.4
60°-70°	286.1	14.1
70°-80°	193.5	9.6
80°-90°	51.1	2.5
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°	496.7	24.5
0°-40°	818.7	40.4
0°-60°	1495.3	73.8
0°-90°	2026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2026.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	630	632	635	635	635	60
15°	607	608	613	616	617	171
25°	563	566	575	578	581	259
35°	499	504	514	525	529	312
45°	419	426	443	465	477	323
55°	323	334	370	407	426	290
65°	215	236	294	340	364	213
75°	106	140	198	238	252	114
85°	27	37	46	48	51	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.4	636.4	636.4	636.4	636.4
2.5°	631.9	633.4	636.4	636.4	637.9
5°	630.4	631.9	634.9	634.9	634.9
7.5°	626.0	627.5	630.4	631.9	631.9
10°	621.5	623.0	626.0	627.5	628.9
12.5°	614.0	615.5	620.0	623.0	623.0
15°	606.6	608.1	612.6	615.5	617.0
17.5°	597.7	600.6	605.1	608.1	609.6
20°	585.7	588.7	594.7	599.1	600.6
22.5°	575.3	578.3	584.2	588.7	591.7
25°	563.4	566.4	575.3	578.3	581.3
27.5°	548.5	551.4	558.9	564.9	569.3
30°	533.6	536.5	545.5	552.9	555.9
32.5°	517.2	521.6	532.1	538.0	542.5
35°	499.3	503.8	514.2	524.6	529.1
37.5°	481.4	485.9	496.3	509.7	515.7
40°	460.5	466.5	479.9	497.8	500.8
42.5°	441.2	448.6	460.5	481.4	488.9
45°	418.8	426.3	442.6	465.0	476.9
47.5°	397.9	405.4	423.3	450.1	465.0
50°	372.6	383.0	405.4	436.7	451.6
52.5°	348.8	357.7	387.5	421.8	439.7
55°	323.4	333.9	369.6	406.9	426.3
57.5°	301.1	310.0	350.2	392.0	414.3
60°	272.7	284.7	330.9	375.6	397.9
62.5°	242.9	260.8	311.5	357.7	381.5
65°	214.6	235.5	293.6	339.8	363.7
67.5°	189.3	211.6	271.3	320.4	342.8
70°	159.5	187.8	248.9	296.6	321.9
72.5°	132.6	163.9	223.6	271.3	293.6
75°	105.8	140.1	198.2	238.5	251.9
77.5°	82.0	114.8	169.9	181.8	183.3
80°	61.1	90.9	126.7	128.2	132.6
82.5°	41.7	64.1	82.0	89.4	90.9
85°	26.8	37.3	46.2	47.7	50.7
87.5°	11.9	13.4	16.4	14.9	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)