

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: P308583

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-3000K**

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: P308583
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: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-3000K
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: 2353.0 lumens
Efficiency: N/A
Efficacy: 63.8 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

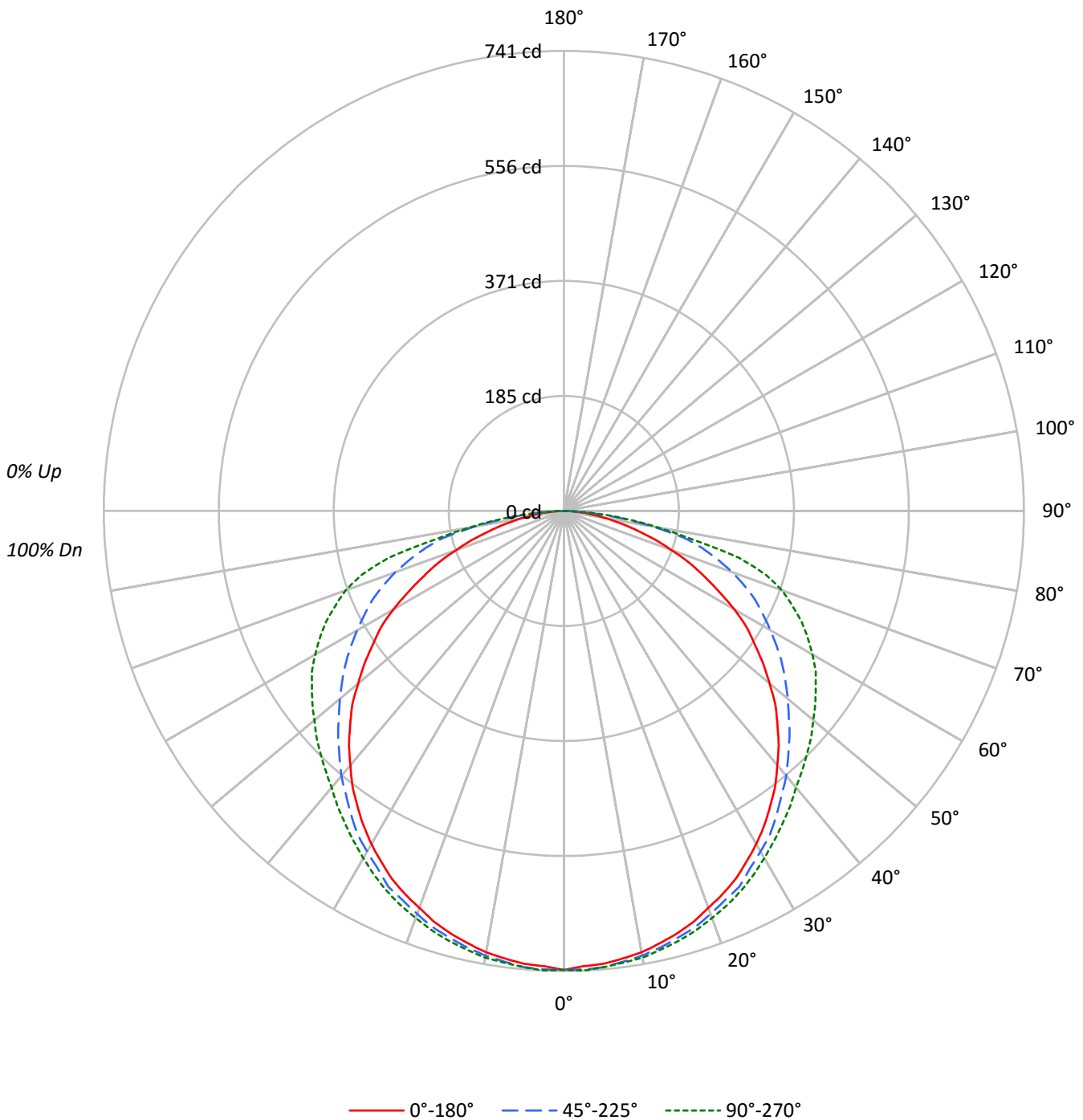
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1989	1989	1989
5°	1978	1992	1992
10°	1972	1987	1996
15°	1963	1982	1996
20°	1948	1978	1998
25°	1943	1984	2004
30°	1926	1968	2006
35°	1905	1962	2019
40°	1879	1958	2043
45°	1851	1956	2108
50°	1811	1971	2196
55°	1762	2014	2323
60°	1705	2068	2488
65°	1587	2171	2690
70°	1457	2275	2942
75°	1278	2393	3041
80°	1100	2280	2388
85°	963	1658	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	3.0
10°-20°	200.7	8.5
20°-30°	306.3	13.0
30°-40°	374.0	15.9
40°-50°	399.9	17.0
50°-60°	385.9	16.4
60°-70°	332.2	14.1
70°-80°	224.8	9.6
80°-90°	59.3	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°	576.9	24.5
0°-40°	950.9	40.4
0°-60°	1736.7	73.8
0°-90°	2353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	732	734	737	737	737	70
15°	704	706	711	715	717	199
25°	654	658	668	672	675	301
35°	580	585	597	609	614	363
45°	486	495	514	540	554	375
55°	376	388	429	473	495	337
65°	249	274	341	395	422	248
75°	123	163	230	277	292	132
85°	31	43	54	55	59	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	739.1	739.1	739.1	739.1	739.1
2.5°	733.9	735.7	739.1	739.1	740.8
5°	732.2	733.9	737.4	737.4	737.4
7.5°	727.0	728.7	732.2	733.9	733.9
10°	721.8	723.5	727.0	728.7	730.5
12.5°	713.2	714.9	720.1	723.5	723.5
15°	704.5	706.2	711.4	714.9	716.6
17.5°	694.1	697.6	702.8	706.2	708.0
20°	680.3	683.7	690.7	695.8	697.6
22.5°	668.1	671.6	678.5	683.7	687.2
25°	654.3	657.8	668.1	671.6	675.1
27.5°	637.0	640.5	649.1	656.0	661.2
30°	619.7	623.1	633.5	642.2	645.6
32.5°	600.6	605.8	618.0	624.9	630.1
35°	579.9	585.1	597.2	609.3	614.5
37.5°	559.1	564.3	576.4	592.0	598.9
40°	534.9	541.8	557.4	578.1	581.6
42.5°	512.4	521.0	534.9	559.1	567.8
45°	486.4	495.1	514.1	540.1	553.9
47.5°	462.2	470.8	491.6	522.7	540.1
50°	432.7	444.9	470.8	507.2	524.5
52.5°	405.0	415.4	450.0	489.9	510.6
55°	375.6	387.7	429.3	472.6	495.1
57.5°	349.7	360.0	406.8	455.2	481.2
60°	316.8	330.6	384.3	436.2	462.2
62.5°	282.1	302.9	361.8	415.4	443.1
65°	249.3	273.5	341.0	394.7	422.4
67.5°	219.8	245.8	315.0	372.2	398.1
70°	185.2	218.1	289.1	344.5	373.9
72.5°	154.1	190.4	259.6	315.0	341.0
75°	122.9	162.7	230.2	277.0	292.5
77.5°	95.2	133.3	197.3	211.2	212.9
80°	71.0	105.6	147.1	148.9	154.1
82.5°	48.5	74.4	95.2	103.9	105.6
85°	31.2	43.3	53.7	55.4	58.9
87.5°	13.8	15.6	19.0	17.3	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)