

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: P312735

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CP250-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: P312735
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-L83050-RDP-CP250-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 2336.0 lumens
Efficiency: N/A
Efficacy: 63.0 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

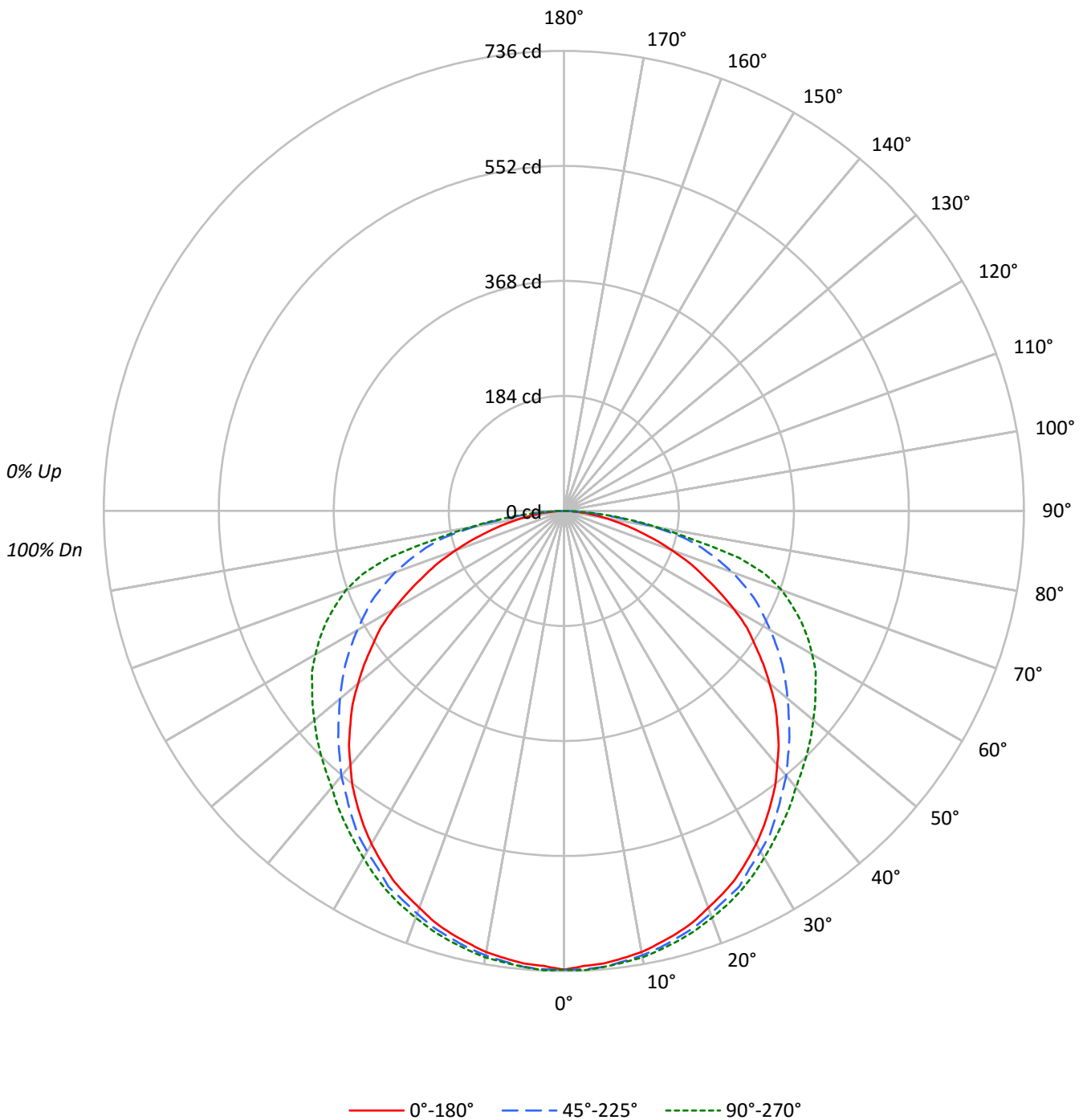
Input Watts (W): 37.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1975	1975	1975
5°	1964	1978	1978
10°	1958	1972	1982
15°	1948	1968	1982
20°	1934	1964	1983
25°	1929	1969	1990
30°	1912	1954	1992
35°	1891	1948	2004
40°	1865	1944	2028
45°	1838	1942	2093
50°	1798	1957	2180
55°	1749	2000	2306
60°	1693	2053	2469
65°	1576	2155	2670
70°	1447	2258	2921
75°	1268	2377	3019
80°	1093	2264	2369
85°	954	1646	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	3.0
10°-20°	199.3	8.5
20°-30°	304.1	13.0
30°-40°	371.3	15.9
40°-50°	397.0	17.0
50°-60°	383.1	16.4
60°-70°	329.8	14.1
70°-80°	223.2	9.6
80°-90°	58.9	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°	572.8	24.5
0°-40°	944.0	40.4
0°-60°	1724.1	73.8
0°-90°	2336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2336.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	727	729	732	732	732	69
15°	699	701	706	710	711	197
25°	650	653	663	667	670	299
35°	576	581	593	605	610	360
45°	483	492	510	536	550	373
55°	373	385	426	469	492	334
65°	248	272	338	392	419	246
75°	122	162	229	275	290	131
85°	31	43	53	55	58	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.8	733.8	733.8	733.8	733.8
2.5°	728.6	730.3	733.8	733.8	735.5
5°	726.9	728.6	732.1	732.1	732.1
7.5°	721.7	723.5	726.9	728.6	728.6
10°	716.6	718.3	721.7	723.5	725.2
12.5°	708.0	709.7	714.9	718.3	718.3
15°	699.4	701.1	706.3	709.7	711.4
17.5°	689.1	692.5	697.7	701.1	702.8
20°	675.4	678.8	685.7	690.8	692.5
22.5°	663.3	666.8	673.6	678.8	682.2
25°	649.6	653.0	663.3	666.8	670.2
27.5°	632.4	635.8	644.4	651.3	656.4
30°	615.2	618.6	629.0	637.5	641.0
32.5°	596.3	601.5	613.5	620.4	625.5
35°	575.7	580.8	592.9	604.9	610.0
37.5°	555.1	560.2	572.2	587.7	594.6
40°	531.0	537.9	553.3	574.0	577.4
42.5°	508.7	517.3	531.0	555.1	563.7
45°	482.9	491.5	510.4	536.2	549.9
47.5°	458.8	467.4	488.0	519.0	536.2
50°	429.6	441.6	467.4	503.5	520.7
52.5°	402.1	412.4	446.8	486.3	506.9
55°	372.9	384.9	426.2	469.1	491.5
57.5°	347.1	357.4	403.8	452.0	477.7
60°	314.5	328.2	381.5	433.0	458.8
62.5°	280.1	300.7	359.2	412.4	439.9
65°	247.5	271.5	338.5	391.8	419.3
67.5°	218.2	244.0	312.8	369.5	395.2
70°	183.9	216.5	287.0	342.0	371.2
72.5°	152.9	189.0	257.8	312.8	338.5
75°	122.0	161.5	228.6	275.0	290.4
77.5°	94.5	132.3	195.9	209.7	211.4
80°	70.5	104.8	146.1	147.8	152.9
82.5°	48.1	73.9	94.5	103.1	104.8
85°	30.9	43.0	53.3	55.0	58.4
87.5°	13.7	15.5	18.9	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)