

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: P308501

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP250-W2A-U-2700K**

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: P308501
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-CP250-W2A-U-2700K
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: 1764.0 lumens
Efficiency: N/A
Efficacy: 63.9 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

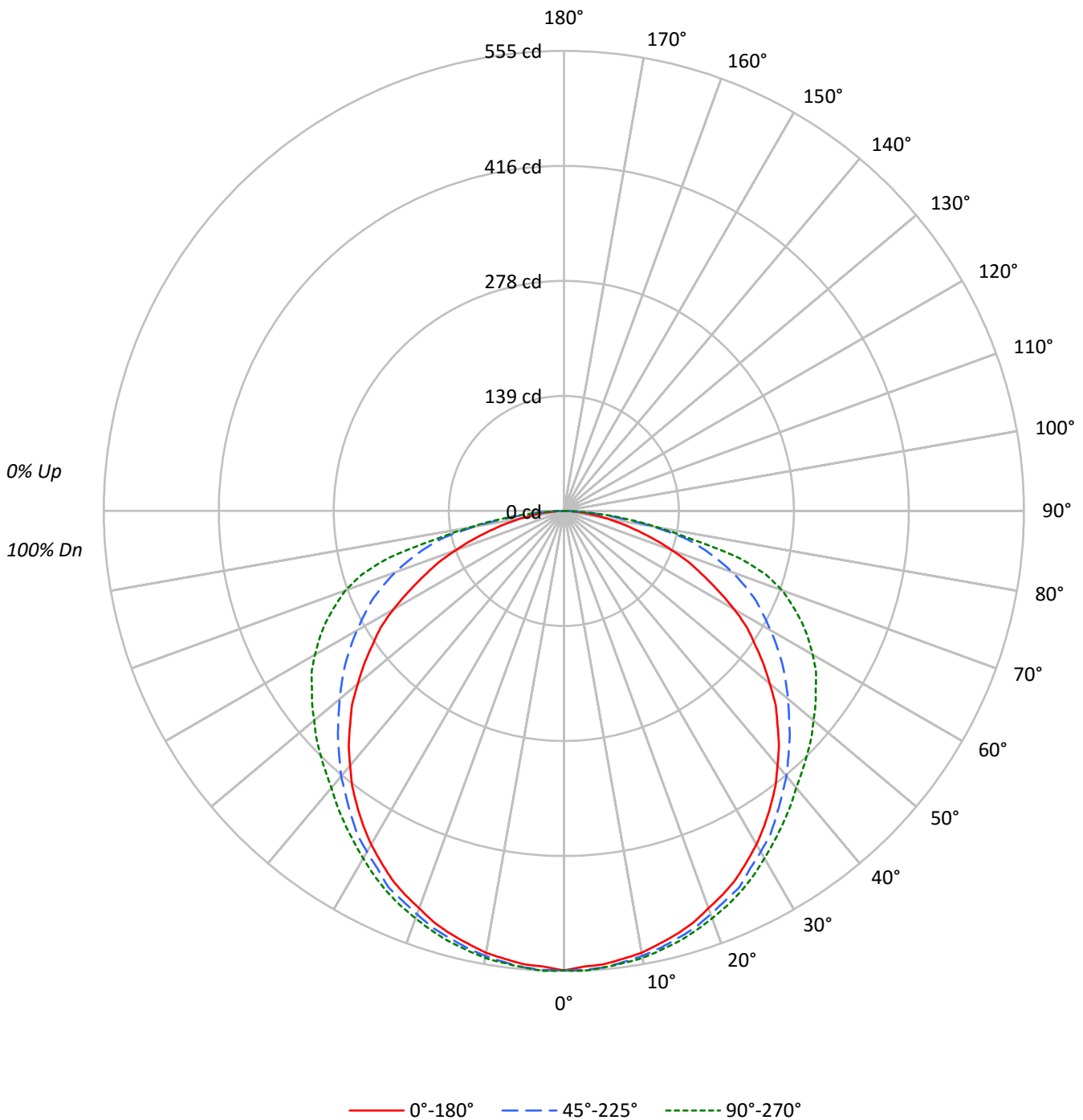
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1491	1491	1491
5°	1483	1493	1493
10°	1479	1489	1496
15°	1471	1486	1497
20°	1460	1483	1498
25°	1456	1487	1503
30°	1444	1476	1504
35°	1428	1471	1513
40°	1409	1468	1532
45°	1388	1467	1580
50°	1358	1478	1646
55°	1321	1510	1741
60°	1278	1551	1865
65°	1190	1628	2016
70°	1093	1705	2205
75°	958	1795	2280
80°	824	1709	1790
85°	722	1241	1362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	3.0
10°-20°	150.5	8.5
20°-30°	229.6	13.0
30°-40°	280.4	15.9
40°-50°	299.8	17.0
50°-60°	289.3	16.4
60°-70°	249.1	14.1
70°-80°	168.5	9.6
80°-90°	44.5	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°	432.5	24.5
0°-40°	712.9	40.4
0°-60°	1302.0	73.8
0°-90°	1764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1764.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	549	550	553	553	553	52
15°	528	529	533	536	537	149
25°	490	493	501	504	506	226
35°	435	439	448	457	461	272
45°	365	371	385	405	415	281
55°	282	291	322	354	371	252
65°	187	205	256	296	317	186
75°	92	122	173	208	219	99
85°	23	32	40	42	44	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.1	554.1	554.1	554.1	554.1
2.5°	550.2	551.5	554.1	554.1	555.4
5°	548.9	550.2	552.8	552.8	552.8
7.5°	545.0	546.3	548.9	550.2	550.2
10°	541.1	542.4	545.0	546.3	547.6
12.5°	534.6	535.9	539.8	542.4	542.4
15°	528.1	529.4	533.3	535.9	537.2
17.5°	520.4	523.0	526.9	529.4	530.7
20°	510.0	512.6	517.8	521.7	523.0
22.5°	500.9	503.5	508.7	512.6	515.2
25°	490.5	493.1	500.9	503.5	506.1
27.5°	477.5	480.1	486.6	491.8	495.7
30°	464.6	467.2	474.9	481.4	484.0
32.5°	450.3	454.2	463.3	468.5	472.4
35°	434.7	438.6	447.7	456.8	460.7
37.5°	419.1	423.0	432.1	443.8	449.0
40°	401.0	406.2	417.8	433.4	436.0
42.5°	384.1	390.6	401.0	419.1	425.6
45°	364.6	371.1	385.4	404.9	415.3
47.5°	346.5	353.0	368.5	391.9	404.9
50°	324.4	333.5	353.0	380.2	393.2
52.5°	303.7	311.4	337.4	367.2	382.8
55°	281.6	290.7	321.8	354.3	371.1
57.5°	262.1	269.9	305.0	341.3	360.8
60°	237.5	247.9	288.1	327.0	346.5
62.5°	211.5	227.1	271.2	311.4	332.2
65°	186.9	205.0	255.6	295.9	316.6
67.5°	164.8	184.3	236.2	279.0	298.5
70°	138.9	163.5	216.7	258.2	280.3
72.5°	115.5	142.7	194.6	236.2	255.6
75°	92.1	122.0	172.6	207.6	219.3
77.5°	71.4	99.9	147.9	158.3	159.6
80°	53.2	79.2	110.3	111.6	115.5
82.5°	36.3	55.8	71.4	77.9	79.2
85°	23.4	32.4	40.2	41.5	44.1
87.5°	10.4	11.7	14.3	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)