

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: P308546

Luminaire Tested: **22FCZ2-39HE-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: P308546
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: 22FCZ2-39HE-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: 2022.0 lumens
Efficiency: N/A
Efficacy: 62.4 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

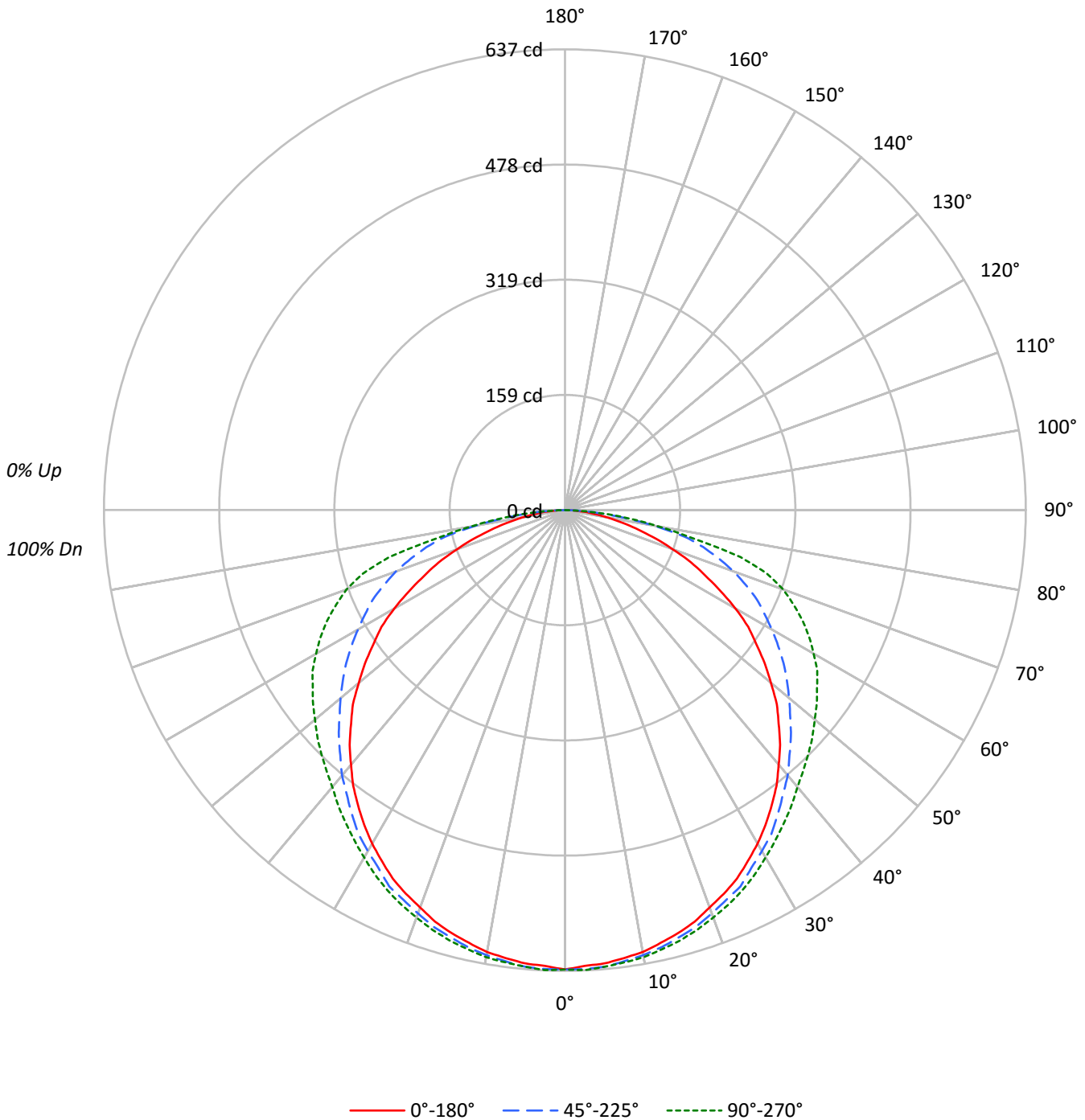
Input Watts (W): 32.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1709	1709	1709
5°	1700	1712	1712
10°	1695	1707	1715
15°	1687	1703	1716
20°	1674	1700	1716
25°	1670	1705	1722
30°	1655	1692	1724
35°	1637	1686	1735
40°	1614	1683	1756
45°	1591	1681	1811
50°	1557	1694	1887
55°	1514	1731	1996
60°	1465	1777	2138
65°	1364	1866	2311
70°	1253	1954	2528
75°	1098	2057	2614
80°	945	1959	2052
85°	827	1423	1562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	3.0
10°-20°	172.5	8.5
20°-30°	263.2	13.0
30°-40°	321.4	15.9
40°-50°	343.6	17.0
50°-60°	331.7	16.4
60°-70°	285.5	14.1
70°-80°	193.2	9.6
80°-90°	51.0	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°	495.8	24.5
0°-40°	817.1	40.4
0°-60°	1492.4	73.8
0°-90°	2022.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2022.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	629	631	634	634	634	60
15°	605	607	611	614	616	171
25°	562	565	574	577	580	259
35°	498	503	513	524	528	312
45°	418	425	442	464	476	323
55°	323	333	369	406	425	289
65°	214	235	293	339	363	213
75°	106	140	198	238	251	113
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°	635.1	635.1	635.1	635.1	635.1
2.5°	630.7	632.2	635.1	635.1	636.6
5°	629.2	630.7	633.7	633.7	633.7
7.5°	624.7	626.2	629.2	630.7	630.7
10°	620.3	621.8	624.7	626.2	627.7
12.5°	612.8	614.3	618.8	621.8	621.8
15°	605.4	606.9	611.3	614.3	615.8
17.5°	596.5	599.4	603.9	606.9	608.4
20°	584.6	587.5	593.5	598.0	599.4
22.5°	574.2	577.1	583.1	587.5	590.5
25°	562.3	565.2	574.2	577.1	580.1
27.5°	547.4	550.4	557.8	563.7	568.2
30°	532.5	535.5	544.4	551.8	554.8
32.5°	516.1	520.6	531.0	537.0	541.4
35°	498.3	502.8	513.2	523.6	528.0
37.5°	480.4	484.9	495.3	508.7	514.7
40°	459.6	465.6	479.0	496.8	499.8
42.5°	440.3	447.7	459.6	480.4	487.9
45°	418.0	425.4	441.8	464.1	476.0
47.5°	397.2	404.6	422.4	449.2	464.1
50°	371.9	382.3	404.6	435.8	450.7
52.5°	348.1	357.0	386.7	421.0	438.8
55°	322.8	333.2	368.9	406.1	425.4
57.5°	300.5	309.4	349.6	391.2	413.5
60°	272.2	284.1	330.2	374.8	397.2
62.5°	242.5	260.3	310.9	357.0	380.8
65°	214.2	235.0	293.0	339.1	362.9
67.5°	188.9	211.2	270.7	319.8	342.1
70°	159.2	187.4	248.4	296.0	321.3
72.5°	132.4	163.6	223.1	270.7	293.0
75°	105.6	139.8	197.8	238.0	251.4
77.5°	81.8	114.5	169.6	181.5	183.0
80°	61.0	90.7	126.4	127.9	132.4
82.5°	41.6	64.0	81.8	89.2	90.7
85°	26.8	37.2	46.1	47.6	50.6
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)