

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: P308486

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP125-W2A-U-4000K**

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: P308486
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-CP125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 2020.0 lumens
Efficiency: N/A
Efficacy: 72.4 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

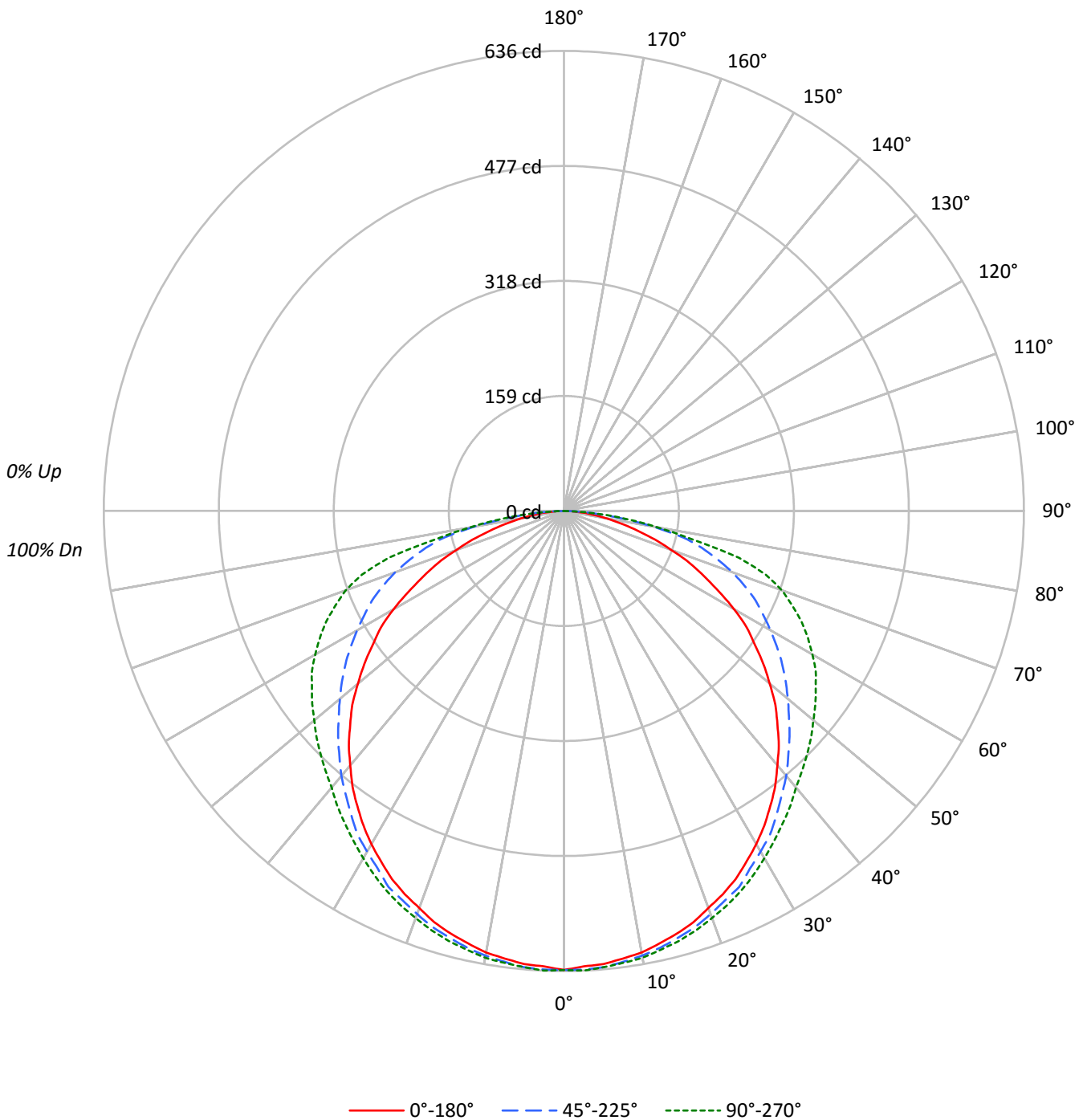
Input Watts (W): 27.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1707	1707	1707
5°	1698	1710	1710
10°	1693	1705	1714
15°	1685	1701	1714
20°	1672	1698	1715
25°	1668	1703	1721
30°	1653	1690	1722
35°	1635	1684	1733
40°	1613	1681	1754
45°	1589	1679	1810
50°	1555	1692	1885
55°	1513	1729	1994
60°	1463	1776	2136
65°	1363	1864	2309
70°	1251	1953	2526
75°	1097	2054	2611
80°	944	1957	2050
85°	824	1423	1559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.0	3.0
10°-20°	172.3	8.5
20°-30°	262.9	13.0
30°-40°	321.0	15.9
40°-50°	343.3	17.0
50°-60°	331.3	16.4
60°-70°	285.2	14.1
70°-80°	193.0	9.6
80°-90°	50.9	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°	495.3	24.5
0°-40°	816.3	40.4
0°-60°	1490.9	73.8
0°-90°	2020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	629	630	633	633	633	60
15°	605	606	611	614	615	171
25°	562	565	574	577	580	259
35°	498	502	513	523	528	311
45°	418	425	441	464	476	322
55°	322	333	368	406	425	289
65°	214	235	293	339	363	213
75°	106	140	198	238	251	113
85°	27	37	46	48	50	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.5	634.5	634.5	634.5	634.5
2.5°	630.1	631.5	634.5	634.5	636.0
5°	628.6	630.1	633.0	633.0	633.0
7.5°	624.1	625.6	628.6	630.1	630.1
10°	619.7	621.1	624.1	625.6	627.1
12.5°	612.2	613.7	618.2	621.1	621.1
15°	604.8	606.3	610.7	613.7	615.2
17.5°	595.9	598.9	603.3	606.3	607.8
20°	584.0	587.0	592.9	597.4	598.9
22.5°	573.6	576.6	582.5	587.0	589.9
25°	561.7	564.7	573.6	576.6	579.5
27.5°	546.8	549.8	557.2	563.2	567.6
30°	532.0	535.0	543.9	551.3	554.3
32.5°	515.6	520.1	530.5	536.4	540.9
35°	497.8	502.3	512.7	523.1	527.5
37.5°	480.0	484.4	494.8	508.2	514.2
40°	459.2	465.1	478.5	496.3	499.3
42.5°	439.9	447.3	459.2	480.0	487.4
45°	417.6	425.0	441.3	463.6	475.5
47.5°	396.8	404.2	422.0	448.8	463.6
50°	371.5	381.9	404.2	435.4	450.3
52.5°	347.7	356.6	386.4	420.5	438.4
55°	322.5	332.9	368.5	405.7	425.0
57.5°	300.2	309.1	349.2	390.8	413.1
60°	271.9	283.8	329.9	374.5	396.8
62.5°	242.2	260.0	310.6	356.6	380.4
65°	214.0	234.8	292.7	338.8	362.6
67.5°	188.7	211.0	270.4	319.5	341.8
70°	159.0	187.2	248.2	295.7	321.0
72.5°	132.3	163.5	222.9	270.4	292.7
75°	105.5	139.7	197.6	237.8	251.1
77.5°	81.7	114.4	169.4	181.3	182.8
80°	60.9	90.6	126.3	127.8	132.3
82.5°	41.6	63.9	81.7	89.2	90.6
85°	26.7	37.1	46.1	47.6	50.5
87.5°	11.9	13.4	16.3	14.9	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)