

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: P308509

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP250-W2A-U-6500K**

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: P308509
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-6500K
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: 2010.0 lumens
Efficiency: N/A
Efficacy: 69.8 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

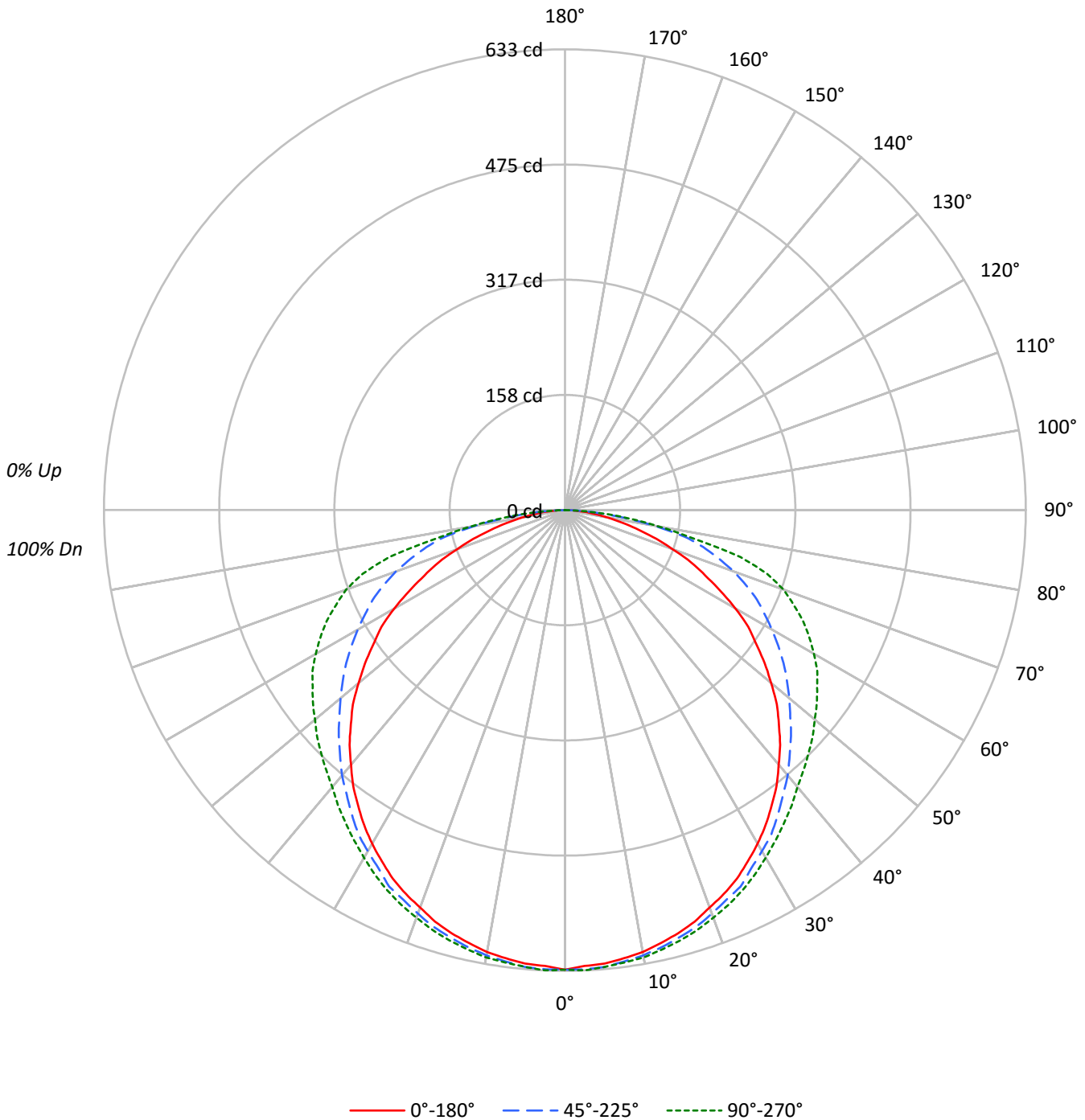
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1699	1699	1699
5°	1690	1702	1702
10°	1685	1697	1705
15°	1677	1693	1706
20°	1664	1690	1706
25°	1659	1695	1712
30°	1645	1682	1714
35°	1627	1676	1724
40°	1605	1672	1745
45°	1581	1671	1801
50°	1548	1684	1876
55°	1506	1720	1984
60°	1456	1767	2125
65°	1356	1855	2297
70°	1245	1943	2513
75°	1092	2045	2598
80°	939	1948	2039
85°	821	1414	1553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	3.0
10°-20°	171.5	8.5
20°-30°	261.6	13.0
30°-40°	319.4	15.9
40°-50°	341.6	17.0
50°-60°	329.7	16.4
60°-70°	283.8	14.1
70°-80°	192.0	9.6
80°-90°	50.7	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°	492.8	24.5
0°-40°	812.3	40.4
0°-60°	1483.5	73.8
0°-90°	2010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	631	631	631	631	631	
5°	626	627	630	630	630	59
15°	602	603	608	611	612	170
25°	559	562	571	574	577	257
35°	495	500	510	520	525	310
45°	416	423	439	461	473	321
55°	321	331	367	404	423	288
65°	213	234	291	337	361	212
75°	105	139	197	237	250	113
85°	27	37	46	47	50	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	631.4	631.4	631.4	631.4	631.4
2.5°	626.9	628.4	631.4	631.4	632.9
5°	625.5	626.9	629.9	629.9	629.9
7.5°	621.0	622.5	625.5	626.9	626.9
10°	616.6	618.1	621.0	622.5	624.0
12.5°	609.2	610.7	615.1	618.1	618.1
15°	601.8	603.3	607.7	610.7	612.2
17.5°	592.9	595.9	600.3	603.3	604.8
20°	581.1	584.1	590.0	594.4	595.9
22.5°	570.8	573.7	579.6	584.1	587.0
25°	558.9	561.9	570.8	573.7	576.7
27.5°	544.1	547.1	554.5	560.4	564.8
30°	529.4	532.3	541.2	548.6	551.5
32.5°	513.1	517.5	527.9	533.8	538.2
35°	495.3	499.8	510.1	520.5	524.9
37.5°	477.6	482.0	492.4	505.7	511.6
40°	456.9	462.8	476.1	493.9	496.8
42.5°	437.7	445.1	456.9	477.6	485.0
45°	415.5	422.9	439.2	461.3	473.2
47.5°	394.8	402.2	419.9	446.5	461.3
50°	369.7	380.0	402.2	433.2	448.0
52.5°	346.0	354.9	384.4	418.5	436.2
55°	320.9	331.2	366.7	403.7	422.9
57.5°	298.7	307.6	347.5	388.9	411.1
60°	270.6	282.4	328.3	372.6	394.8
62.5°	241.0	258.8	309.0	354.9	378.5
65°	212.9	233.6	291.3	337.1	360.8
67.5°	187.8	210.0	269.1	317.9	340.1
70°	158.2	186.3	246.9	294.2	319.4
72.5°	131.6	162.6	221.8	269.1	291.3
75°	105.0	139.0	196.7	236.6	249.9
77.5°	81.3	113.9	168.6	180.4	181.9
80°	60.6	90.2	125.7	127.2	131.6
82.5°	41.4	63.6	81.3	88.7	90.2
85°	26.6	37.0	45.8	47.3	50.3
87.5°	11.8	13.3	16.3	14.8	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)