

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: P308505

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP250-W2A-U-4500K**

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: P308505
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-4500K
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: 1953.0 lumens
Efficiency: N/A
Efficacy: 69.5 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

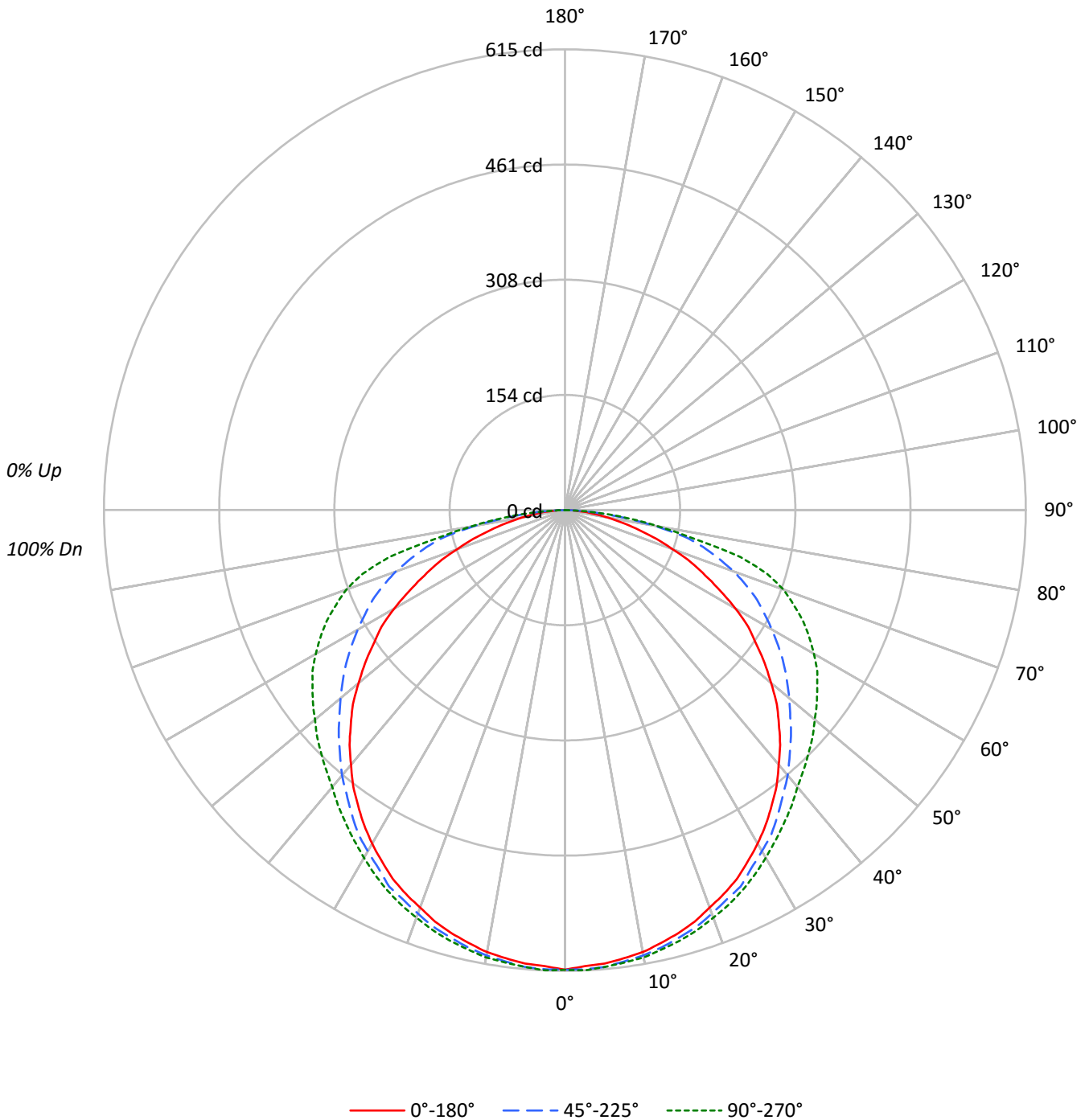
Input Watts (W): 28.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1651	1651	1651
5°	1642	1653	1653
10°	1637	1649	1657
15°	1629	1645	1657
20°	1617	1641	1658
25°	1613	1647	1664
30°	1598	1634	1665
35°	1581	1628	1675
40°	1559	1625	1696
45°	1536	1624	1749
50°	1504	1636	1822
55°	1463	1672	1928
60°	1415	1716	2065
65°	1317	1802	2232
70°	1209	1888	2441
75°	1061	1987	2524
80°	913	1892	1982
85°	800	1374	1507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	3.0
10°-20°	166.6	8.5
20°-30°	254.2	13.0
30°-40°	310.4	15.9
40°-50°	331.9	17.0
50°-60°	320.3	16.4
60°-70°	275.7	14.1
70°-80°	186.6	9.6
80°-90°	49.2	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°	478.9	24.5
0°-40°	789.2	40.4
0°-60°	1441.4	73.8
0°-90°	1953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	608	609	612	612	612	58
15°	585	586	590	593	595	165
25°	543	546	555	557	560	250
35°	481	486	496	506	510	301
45°	404	411	427	448	460	312
55°	312	322	356	392	411	279
65°	207	227	283	328	351	206
75°	102	135	191	230	243	109
85°	26	36	44	46	49	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	613.5	613.5	613.5	613.5	613.5
2.5°	609.2	610.6	613.5	613.5	614.9
5°	607.7	609.2	612.0	612.0	612.0
7.5°	603.4	604.9	607.7	609.2	609.2
10°	599.1	600.5	603.4	604.9	606.3
12.5°	591.9	593.4	597.7	600.5	600.5
15°	584.7	586.2	590.5	593.4	594.8
17.5°	576.1	579.0	583.3	586.2	587.6
20°	564.6	567.5	573.2	577.6	579.0
22.5°	554.6	557.4	563.2	567.5	570.4
25°	543.1	545.9	554.6	557.4	560.3
27.5°	528.7	531.6	538.8	544.5	548.8
30°	514.3	517.2	525.8	533.0	535.9
32.5°	498.5	502.8	512.9	518.6	523.0
35°	481.3	485.6	495.7	505.7	510.0
37.5°	464.1	468.4	478.4	491.4	497.1
40°	443.9	449.7	462.6	479.9	482.7
42.5°	425.3	432.4	443.9	464.1	471.2
45°	403.7	410.9	426.7	448.3	459.7
47.5°	383.6	390.8	408.0	433.9	448.3
50°	359.2	369.2	390.8	421.0	435.3
52.5°	336.2	344.8	373.5	406.6	423.8
55°	311.8	321.8	356.3	392.2	410.9
57.5°	290.2	298.8	337.6	377.9	399.4
60°	262.9	274.4	318.9	362.0	383.6
62.5°	234.2	251.4	300.3	344.8	367.8
65°	206.9	227.0	283.0	327.6	350.6
67.5°	182.5	204.0	261.5	308.9	330.4
70°	153.7	181.0	239.9	285.9	310.3
72.5°	127.9	158.0	215.5	261.5	283.0
75°	102.0	135.0	191.1	229.9	242.8
77.5°	79.0	110.6	163.8	175.3	176.7
80°	58.9	87.6	122.1	123.6	127.9
82.5°	40.2	61.8	79.0	86.2	87.6
85°	25.9	35.9	44.5	46.0	48.8
87.5°	11.5	12.9	15.8	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)