

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: P308473

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CA08-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: P308473
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-CA08-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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: 2165.0 lumens
Efficiency: N/A
Efficacy: 75.2 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

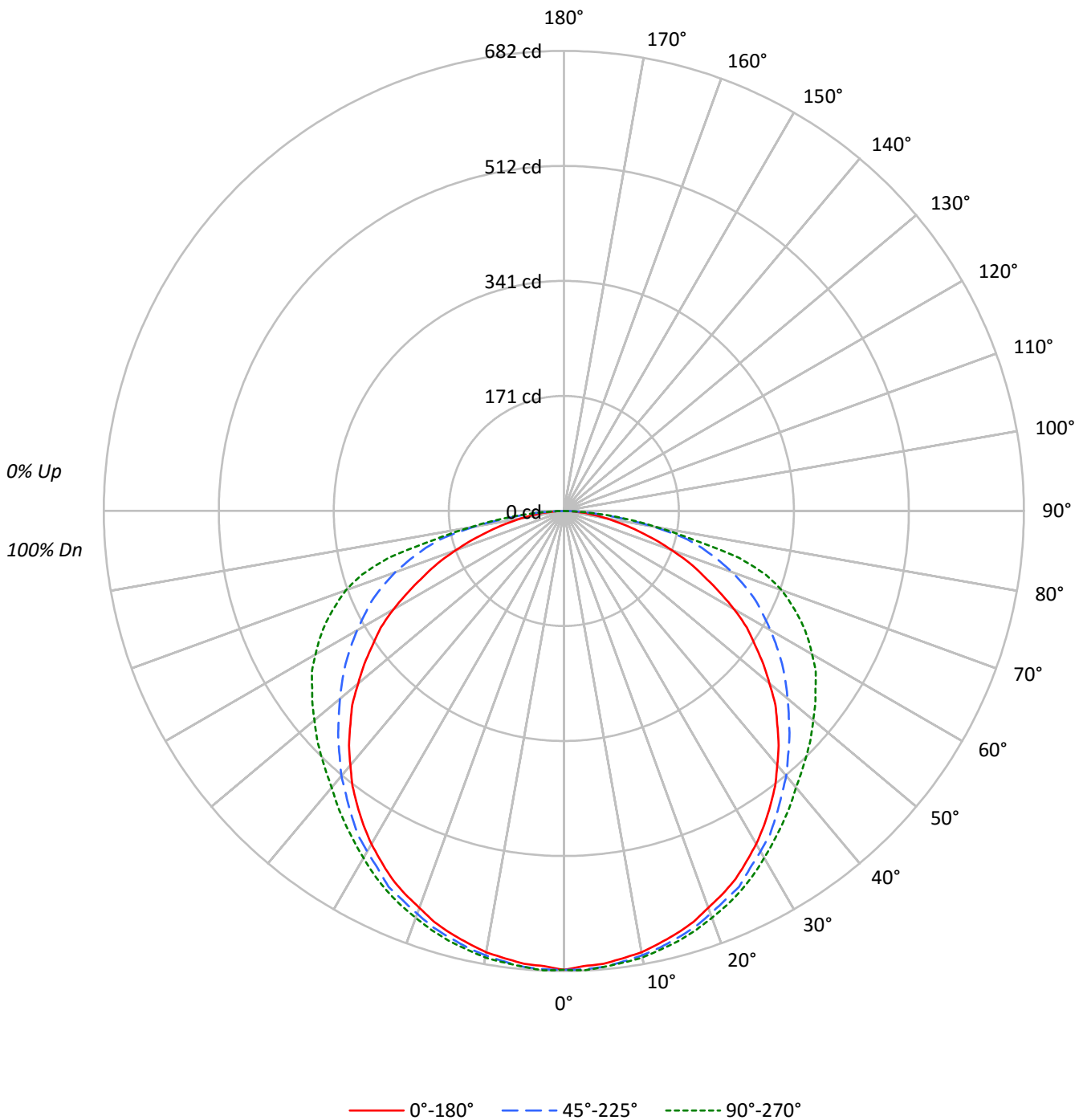
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1830	1830	1830
5°	1820	1833	1833
10°	1815	1828	1837
15°	1806	1824	1837
20°	1792	1820	1838
25°	1787	1825	1844
30°	1772	1811	1846
35°	1753	1805	1857
40°	1729	1801	1880
45°	1703	1800	1939
50°	1667	1814	2020
55°	1621	1853	2137
60°	1569	1903	2288
65°	1460	1998	2474
70°	1341	2093	2707
75°	1176	2202	2799
80°	1012	2098	2196
85°	886	1525	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	3.0
10°-20°	184.7	8.5
20°-30°	281.8	13.0
30°-40°	344.1	15.9
40°-50°	367.9	17.0
50°-60°	355.1	16.4
60°-70°	305.7	14.1
70°-80°	206.8	9.6
80°-90°	54.6	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°	530.8	24.5
0°-40°	874.9	40.4
0°-60°	1597.9	73.8
0°-90°	2165.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2165.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	674	675	678	678	678	64
15°	648	650	655	658	659	183
25°	602	605	615	618	621	277
35°	534	538	550	561	565	334
45°	448	456	473	497	510	345
55°	346	357	395	435	456	310
65°	229	252	314	363	389	228
75°	113	150	212	255	269	121
85°	29	40	49	51	54	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.1	680.1	680.1	680.1	680.1
2.5°	675.3	676.9	680.1	680.1	681.7
5°	673.7	675.3	678.5	678.5	678.5
7.5°	668.9	670.5	673.7	675.3	675.3
10°	664.1	665.7	668.9	670.5	672.1
12.5°	656.2	657.8	662.5	665.7	665.7
15°	648.2	649.8	654.6	657.8	659.4
17.5°	638.7	641.8	646.6	649.8	651.4
20°	625.9	629.1	635.5	640.2	641.8
22.5°	614.8	618.0	624.3	629.1	632.3
25°	602.0	605.2	614.8	618.0	621.1
27.5°	586.1	589.3	597.2	603.6	608.4
30°	570.2	573.4	582.9	590.9	594.1
32.5°	552.7	557.4	568.6	574.9	579.7
35°	533.5	538.3	549.5	560.6	565.4
37.5°	514.4	519.2	530.4	544.7	551.1
40°	492.1	498.5	512.8	531.9	535.1
42.5°	471.4	479.4	492.1	514.4	522.4
45°	447.5	455.5	473.0	496.9	509.6
47.5°	425.2	433.2	452.3	481.0	496.9
50°	398.2	409.3	433.2	466.6	482.6
52.5°	372.7	382.2	414.1	450.7	469.8
55°	345.6	356.8	395.0	434.8	455.5
57.5°	321.7	331.3	374.3	418.9	442.8
60°	291.5	304.2	353.6	401.3	425.2
62.5°	259.6	278.7	332.9	382.2	407.7
65°	229.3	251.6	313.8	363.1	388.6
67.5°	202.3	226.2	289.9	342.4	366.3
70°	170.4	200.7	266.0	316.9	344.0
72.5°	141.7	175.2	238.9	289.9	313.8
75°	113.1	149.7	211.8	254.8	269.2
77.5°	87.6	122.6	181.6	194.3	195.9
80°	65.3	97.2	135.4	137.0	141.7
82.5°	44.6	68.5	87.6	95.6	97.2
85°	28.7	39.8	49.4	51.0	54.2
87.5°	12.7	14.3	17.5	15.9	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)