

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: P312673

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CA125-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: P312673
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-L83050-RDP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2188.0 lumens
Efficiency: N/A
Efficacy: 75.4 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

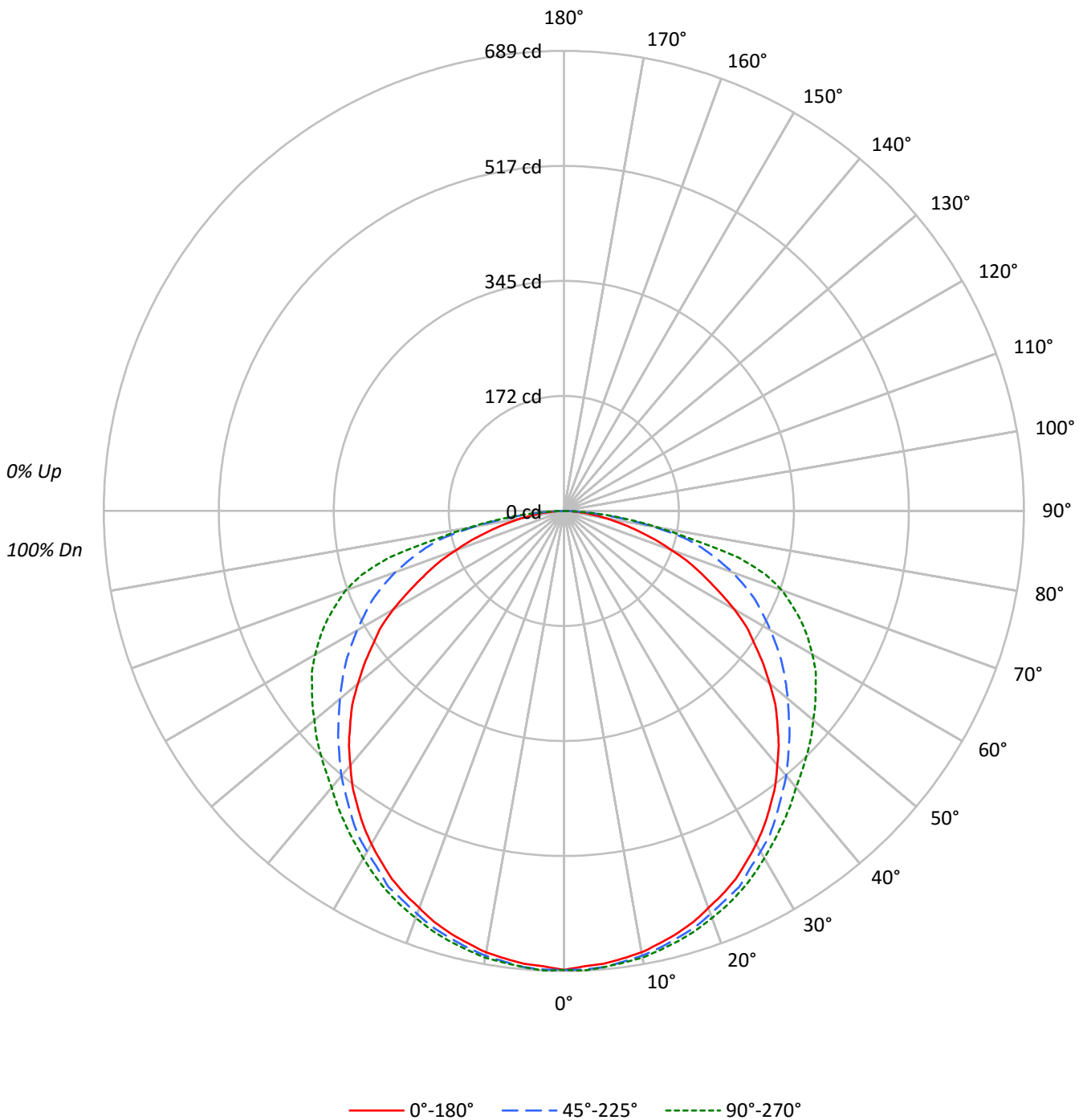
Input Watts (W): 29
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1850	1850	1850
5°	1839	1852	1852
10°	1834	1847	1856
15°	1825	1843	1857
20°	1812	1839	1858
25°	1806	1845	1864
30°	1790	1830	1866
35°	1771	1824	1877
40°	1747	1821	1900
45°	1721	1819	1960
50°	1685	1833	2042
55°	1639	1873	2160
60°	1586	1923	2313
65°	1476	2019	2500
70°	1355	2115	2736
75°	1188	2226	2828
80°	1023	2120	2221
85°	895	1541	1689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	3.0
10°-20°	186.7	8.5
20°-30°	284.8	13.0
30°-40°	347.7	15.9
40°-50°	371.8	17.0
50°-60°	358.9	16.4
60°-70°	308.9	14.1
70°-80°	209.0	9.6
80°-90°	55.2	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°	536.5	24.5
0°-40°	884.2	40.4
0°-60°	1614.9	73.8
0°-90°	2188.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2188.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	687	687	687	687	687	
5°	681	682	686	686	686	65
15°	655	657	662	665	666	185
25°	608	612	621	624	628	280
35°	539	544	555	567	571	337
45°	452	460	478	502	515	349
55°	349	360	399	439	460	313
65°	232	254	317	367	393	231
75°	114	151	214	258	272	123
85°	29	40	50	52	55	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	687.3	687.3	687.3	687.3	687.3
2.5°	682.5	684.1	687.3	687.3	688.9
5°	680.9	682.5	685.7	685.7	685.7
7.5°	676.0	677.6	680.9	682.5	682.5
10°	671.2	672.8	676.0	677.6	679.2
12.5°	663.1	664.8	669.6	672.8	672.8
15°	655.1	656.7	661.5	664.8	666.4
17.5°	645.4	648.7	653.5	656.7	658.3
20°	632.6	635.8	642.2	647.0	648.7
22.5°	621.3	624.5	631.0	635.8	639.0
25°	608.4	611.6	621.3	624.5	627.7
27.5°	592.3	595.5	603.6	610.0	614.9
30°	576.2	579.4	589.1	597.2	600.4
32.5°	558.5	563.4	574.6	581.1	585.9
35°	539.2	544.0	555.3	566.6	571.4
37.5°	519.9	524.7	536.0	550.5	556.9
40°	497.4	503.8	518.3	537.6	540.8
42.5°	476.4	484.5	497.4	519.9	527.9
45°	452.3	460.3	478.0	502.2	515.1
47.5°	429.8	437.8	457.1	486.1	502.2
50°	402.4	413.7	437.8	471.6	487.7
52.5°	376.6	386.3	418.5	455.5	474.8
55°	349.3	360.5	399.2	439.4	460.3
57.5°	325.1	334.8	378.3	423.3	447.5
60°	294.6	307.4	357.3	405.6	429.8
62.5°	262.4	281.7	336.4	386.3	412.1
65°	231.8	254.3	317.1	367.0	392.7
67.5°	204.4	228.6	292.9	346.1	370.2
70°	172.2	202.8	268.8	320.3	347.7
72.5°	143.3	177.1	241.4	292.9	317.1
75°	114.3	151.3	214.1	257.5	272.0
77.5°	88.5	123.9	183.5	196.4	198.0
80°	66.0	98.2	136.8	138.4	143.3
82.5°	45.1	69.2	88.5	96.6	98.2
85°	29.0	40.2	49.9	51.5	54.7
87.5°	12.9	14.5	17.7	16.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)