

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: P312678

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CP125-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: P312678
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 2145.0 lumens
Efficiency: N/A
Efficacy: 74.0 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

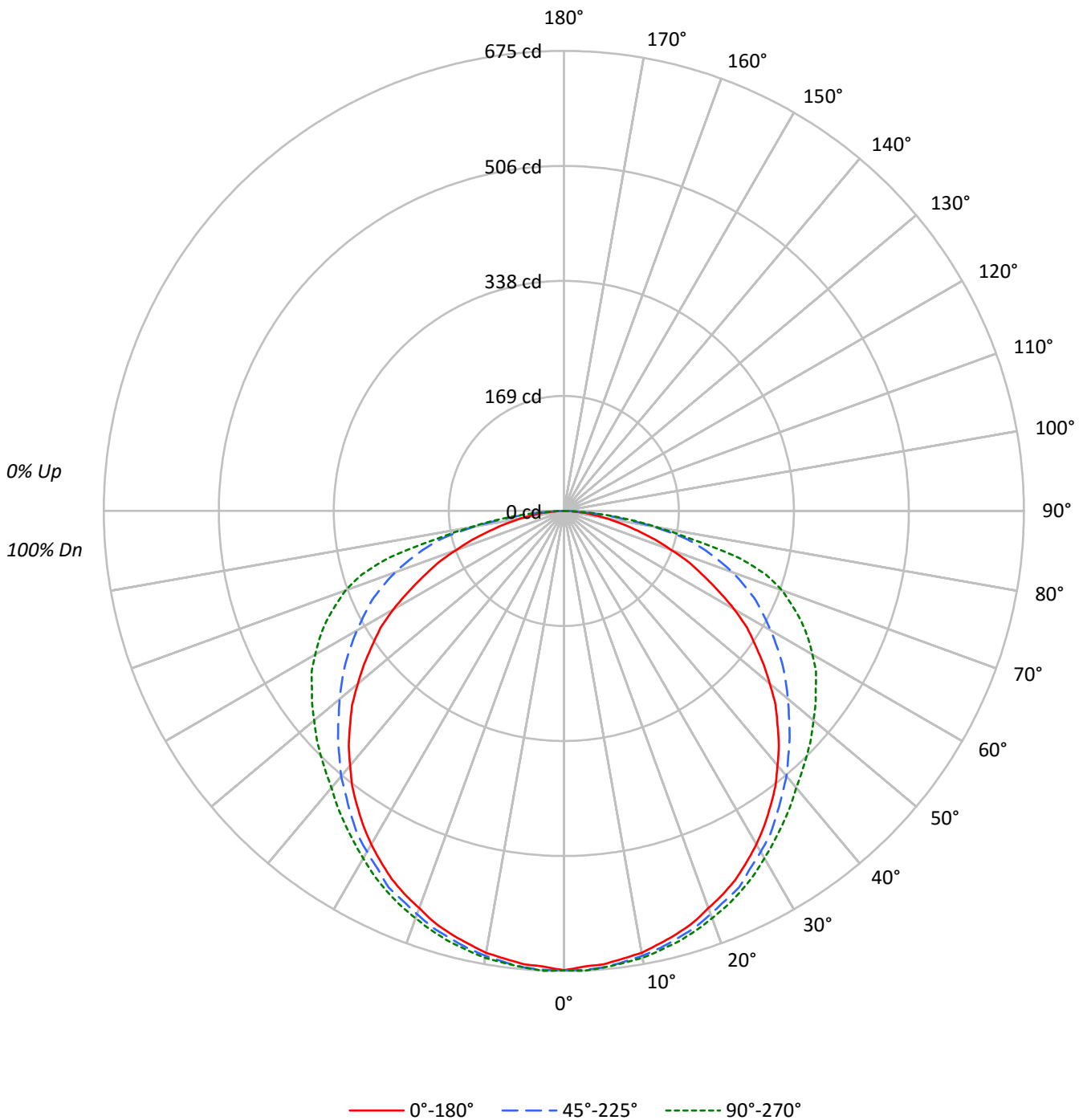
Input Watts (W): 29
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1813	1813	1813
5°	1803	1816	1816
10°	1798	1811	1820
15°	1789	1807	1820
20°	1776	1803	1821
25°	1771	1809	1827
30°	1755	1794	1829
35°	1736	1788	1840
40°	1713	1785	1862
45°	1687	1783	1921
50°	1652	1797	2002
55°	1606	1836	2117
60°	1554	1885	2267
65°	1447	1980	2451
70°	1328	2073	2681
75°	1164	2182	2773
80°	1003	2078	2176
85°	877	1510	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	3.0
10°-20°	183.0	8.5
20°-30°	279.2	13.0
30°-40°	340.9	15.9
40°-50°	364.5	17.0
50°-60°	351.8	16.4
60°-70°	302.9	14.1
70°-80°	204.9	9.6
80°-90°	54.1	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°	525.9	24.5
0°-40°	866.8	40.4
0°-60°	1583.1	73.8
0°-90°	2145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2145.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	668	669	672	672	672	63
15°	642	644	648	652	653	181
25°	596	600	609	612	615	275
35°	529	533	544	555	560	331
45°	443	451	469	492	505	342
55°	342	354	391	431	451	307
65°	227	249	311	360	385	226
75°	112	148	210	252	267	120
85°	28	39	49	50	54	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	673.8	673.8	673.8	673.8	673.8
2.5°	669.0	670.6	673.8	673.8	675.4
5°	667.5	669.0	672.2	672.2	672.2
7.5°	662.7	664.3	667.5	669.0	669.0
10°	658.0	659.6	662.7	664.3	665.9
12.5°	650.1	651.7	656.4	659.6	659.6
15°	642.2	643.8	648.5	651.7	653.3
17.5°	632.8	635.9	640.6	643.8	645.4
20°	620.1	623.3	629.6	634.3	635.9
22.5°	609.1	612.2	618.6	623.3	626.4
25°	596.5	599.6	609.1	612.2	615.4
27.5°	580.7	583.8	591.7	598.0	602.8
30°	564.9	568.1	577.5	585.4	588.6
32.5°	547.5	552.3	563.3	569.6	574.4
35°	528.6	533.3	544.4	555.4	560.2
37.5°	509.7	514.4	525.5	539.7	546.0
40°	487.6	493.9	508.1	527.0	530.2
42.5°	467.1	475.0	487.6	509.7	517.6
45°	443.4	451.3	468.6	492.3	504.9
47.5°	421.3	429.2	448.1	476.5	492.3
50°	394.5	405.5	429.2	462.3	478.1
52.5°	369.2	378.7	410.3	446.6	465.5
55°	342.4	353.5	391.3	430.8	451.3
57.5°	318.7	328.2	370.8	415.0	438.7
60°	288.8	301.4	350.3	397.6	421.3
62.5°	257.2	276.1	329.8	378.7	404.0
65°	227.2	249.3	310.9	359.8	385.0
67.5°	200.4	224.1	287.2	339.3	362.9
70°	168.8	198.8	263.5	314.0	340.8
72.5°	140.4	173.6	236.7	287.2	310.9
75°	112.0	148.3	209.9	252.5	266.7
77.5°	86.8	121.5	179.9	192.5	194.1
80°	64.7	96.3	134.1	135.7	140.4
82.5°	44.2	67.9	86.8	94.7	96.3
85°	28.4	39.4	48.9	50.5	53.7
87.5°	12.6	14.2	17.4	15.8	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)