

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: P312672

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CA125-W2A-U-4000K**

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: P312672
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-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2167.0 lumens
Efficiency: N/A
Efficacy: 76.8 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

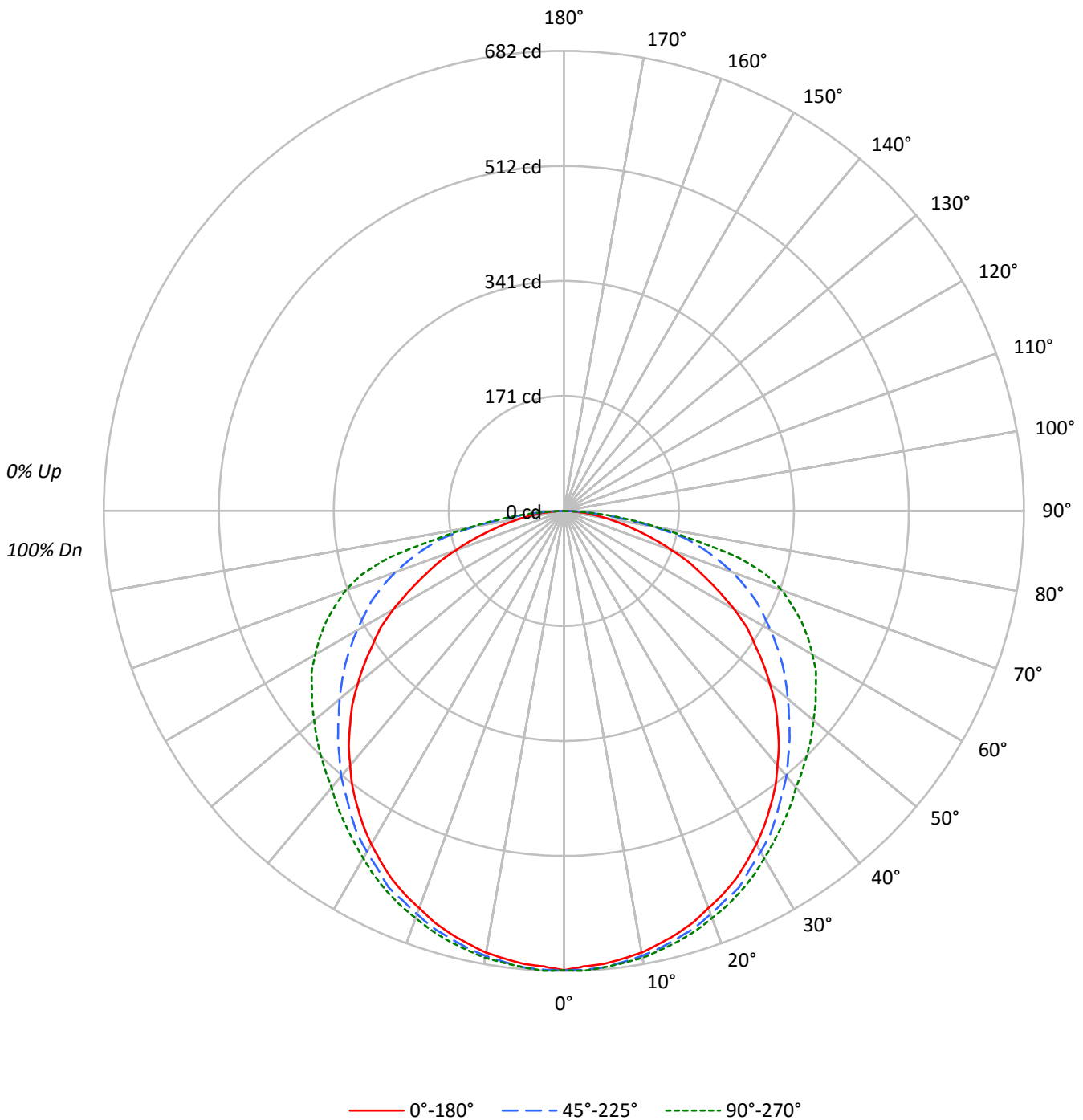
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1832	1832	1832
5°	1821	1834	1834
10°	1817	1829	1838
15°	1807	1825	1839
20°	1794	1822	1840
25°	1789	1827	1846
30°	1773	1813	1848
35°	1754	1807	1859
40°	1730	1803	1881
45°	1705	1802	1941
50°	1668	1815	2022
55°	1623	1855	2139
60°	1570	1905	2291
65°	1462	1999	2477
70°	1342	2094	2709
75°	1177	2204	2801
80°	1013	2100	2199
85°	886	1525	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	3.0
10°-20°	184.9	8.5
20°-30°	282.1	13.0
30°-40°	344.4	15.9
40°-50°	368.2	17.0
50°-60°	355.4	16.4
60°-70°	306.0	14.1
70°-80°	207.0	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°	531.3	24.5
0°-40°	875.7	40.4
0°-60°	1599.4	73.8
0°-90°	2167.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2167.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	681	681	681	681	681	
5°	674	676	679	679	679	64
15°	649	650	655	658	660	183
25°	603	606	615	618	622	277
35°	534	539	550	561	566	334
45°	448	456	474	497	510	346
55°	346	357	395	435	456	310
65°	230	252	314	364	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°	680.7	680.7	680.7	680.7	680.7
2.5°	675.9	677.5	680.7	680.7	682.3
5°	674.3	675.9	679.1	679.1	679.1
7.5°	669.5	671.1	674.3	675.9	675.9
10°	664.8	666.3	669.5	671.1	672.7
12.5°	656.8	658.4	663.2	666.3	666.3
15°	648.8	650.4	655.2	658.4	660.0
17.5°	639.2	642.4	647.2	650.4	652.0
20°	626.5	629.7	636.1	640.8	642.4
22.5°	615.3	618.5	624.9	629.7	632.9
25°	602.6	605.8	615.3	618.5	621.7
27.5°	586.6	589.8	597.8	604.2	609.0
30°	570.7	573.9	583.5	591.4	594.6
32.5°	553.2	557.9	569.1	575.5	580.3
35°	534.0	538.8	550.0	561.1	565.9
37.5°	514.9	519.7	530.8	545.2	551.6
40°	492.6	499.0	513.3	532.4	535.6
42.5°	471.9	479.8	492.6	514.9	522.9
45°	447.9	455.9	473.5	497.4	510.1
47.5°	425.6	433.6	452.7	481.4	497.4
50°	398.5	409.7	433.6	467.1	483.0
52.5°	373.0	382.6	414.5	451.1	470.3
55°	345.9	357.1	395.3	435.2	455.9
57.5°	322.0	331.6	374.6	419.3	443.2
60°	291.7	304.5	353.9	401.7	425.6
62.5°	259.8	279.0	333.2	382.6	408.1
65°	229.6	251.9	314.0	363.5	389.0
67.5°	202.5	226.4	290.1	342.7	366.6
70°	170.6	200.9	266.2	317.2	344.3
72.5°	141.9	175.4	239.1	290.1	314.0
75°	113.2	149.8	212.0	255.1	269.4
77.5°	87.7	122.7	181.7	194.5	196.1
80°	65.4	97.2	135.5	137.1	141.9
82.5°	44.6	68.5	87.7	95.6	97.2
85°	28.7	39.9	49.4	51.0	54.2
87.5°	12.8	14.3	17.5	15.9	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)