

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: P312677

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CP125-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: P312677
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-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 2125.0 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

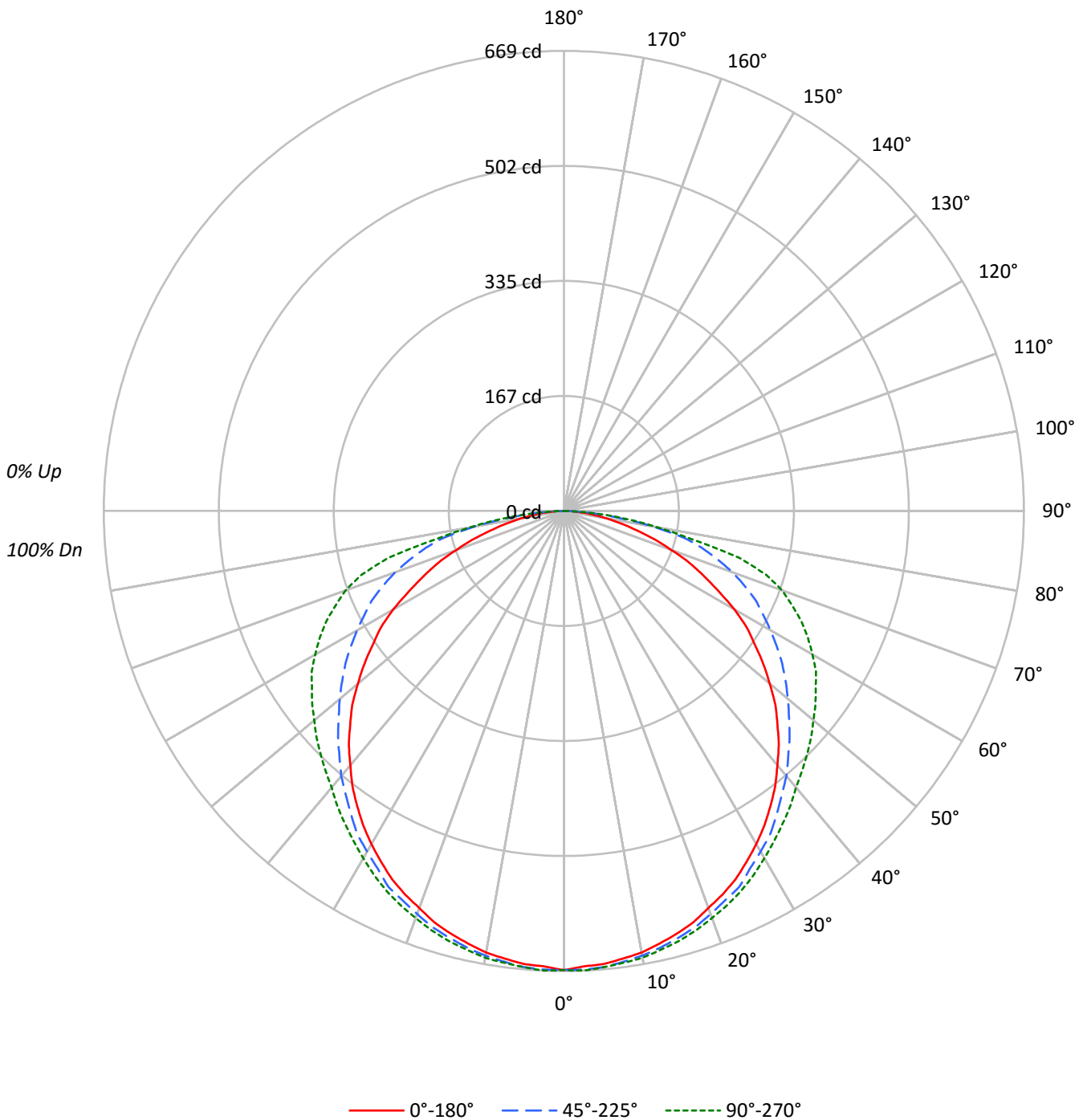
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1796	1796	1796
5°	1786	1799	1799
10°	1781	1794	1803
15°	1772	1790	1803
20°	1759	1786	1804
25°	1754	1792	1810
30°	1739	1778	1812
35°	1720	1772	1823
40°	1697	1768	1845
45°	1672	1767	1904
50°	1636	1780	1983
55°	1591	1819	2098
60°	1540	1868	2246
65°	1433	1961	2429
70°	1316	2054	2657
75°	1154	2162	2747
80°	993	2060	2156
85°	868	1497	1639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	3.0
10°-20°	181.3	8.5
20°-30°	276.6	13.0
30°-40°	337.7	15.9
40°-50°	361.1	17.0
50°-60°	348.6	16.4
60°-70°	300.0	14.1
70°-80°	203.0	9.6
80°-90°	53.6	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°	521.0	24.5
0°-40°	858.7	40.4
0°-60°	1568.4	73.8
0°-90°	2125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2125.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	668	668	668	668	668	
5°	661	663	666	666	666	63
15°	636	638	642	646	647	179
25°	591	594	603	606	610	272
35°	524	528	539	550	555	328
45°	439	447	464	488	500	339
55°	339	350	388	427	447	304
65°	225	247	308	356	381	224
75°	111	147	208	250	264	119
85°	28	39	48	50	53	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	667.5	667.5	667.5	667.5	667.5
2.5°	662.8	664.4	667.5	667.5	669.1
5°	661.2	662.8	665.9	665.9	665.9
7.5°	656.6	658.1	661.2	662.8	662.8
10°	651.9	653.4	656.6	658.1	659.7
12.5°	644.1	645.6	650.3	653.4	653.4
15°	636.2	637.8	642.5	645.6	647.2
17.5°	626.9	630.0	634.7	637.8	639.4
20°	614.3	617.5	623.7	628.4	630.0
22.5°	603.4	606.5	612.8	617.5	620.6
25°	590.9	594.0	603.4	606.5	609.7
27.5°	575.3	578.4	586.2	592.5	597.2
30°	559.6	562.8	572.1	580.0	583.1
32.5°	542.4	547.1	558.1	564.3	569.0
35°	523.7	528.4	539.3	550.3	554.9
37.5°	504.9	509.6	520.6	534.6	540.9
40°	483.0	489.3	503.4	522.1	525.2
42.5°	462.7	470.5	483.0	504.9	512.7
45°	439.3	447.1	464.3	487.7	500.2
47.5°	417.4	425.2	444.0	472.1	487.7
50°	390.8	401.8	425.2	458.0	473.7
52.5°	365.8	375.2	406.4	442.4	461.2
55°	339.2	350.2	387.7	426.8	447.1
57.5°	315.8	325.2	367.4	411.1	434.6
60°	286.1	298.6	347.0	393.9	417.4
62.5°	254.8	273.6	326.7	375.2	400.2
65°	225.1	247.0	308.0	356.4	381.4
67.5°	198.5	222.0	284.5	336.1	359.5
70°	167.3	197.0	261.1	311.1	337.7
72.5°	139.1	172.0	234.5	284.5	308.0
75°	111.0	146.9	207.9	250.1	264.2
77.5°	86.0	120.4	178.2	190.7	192.3
80°	64.1	95.4	132.9	134.4	139.1
82.5°	43.8	67.2	86.0	93.8	95.4
85°	28.1	39.1	48.5	50.0	53.1
87.5°	12.5	14.1	17.2	15.6	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)