

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: P308487

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-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: P308487
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 2056.0 lumens
Efficiency: N/A
Efficacy: 73.2 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

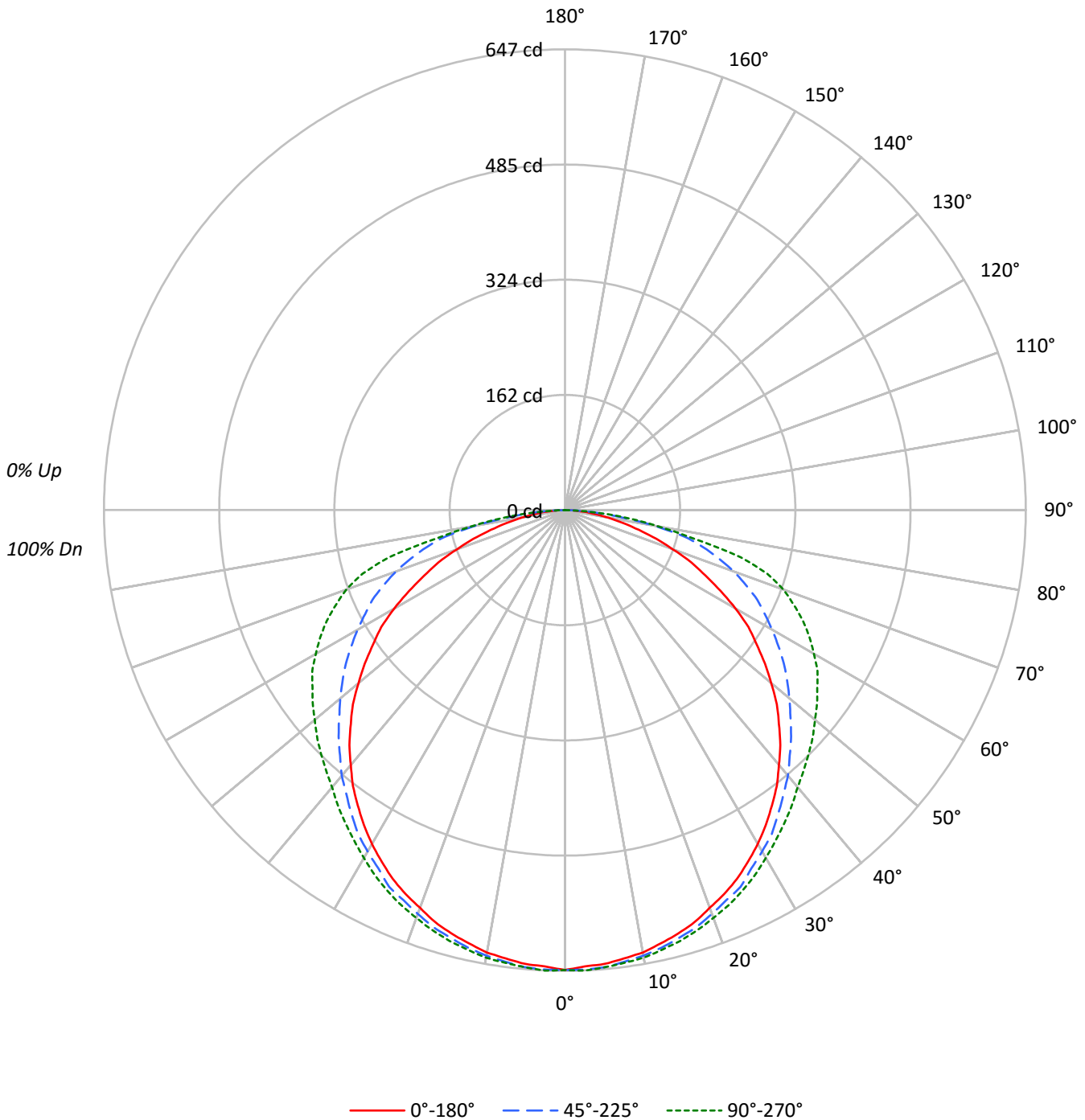
Input Watts (W): 28.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1738	1738	1738
5°	1728	1740	1740
10°	1723	1736	1744
15°	1715	1732	1745
20°	1702	1728	1745
25°	1697	1733	1752
30°	1683	1720	1753
35°	1665	1714	1764
40°	1642	1711	1785
45°	1617	1709	1842
50°	1583	1722	1919
55°	1540	1760	2030
60°	1490	1807	2173
65°	1387	1897	2350
70°	1273	1987	2570
75°	1117	2092	2658
80°	961	1993	2086
85°	840	1448	1587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	3.0
10°-20°	175.4	8.5
20°-30°	267.6	13.0
30°-40°	326.8	15.9
40°-50°	349.4	17.0
50°-60°	337.2	16.4
60°-70°	290.3	14.1
70°-80°	196.4	9.6
80°-90°	51.8	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°	504.1	24.5
0°-40°	830.9	40.4
0°-60°	1517.5	73.8
0°-90°	2056.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2056.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	640	641	644	644	644	61
15°	616	617	622	625	626	174
25°	572	575	584	587	590	263
35°	507	511	522	532	537	317
45°	425	433	449	472	484	328
55°	328	339	375	413	433	294
65°	218	239	298	345	369	217
75°	107	142	201	242	256	115
85°	27	38	47	48	51	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.8	645.8	645.8	645.8	645.8
2.5°	641.3	642.8	645.8	645.8	647.3
5°	639.8	641.3	644.3	644.3	644.3
7.5°	635.2	636.8	639.8	641.3	641.3
10°	630.7	632.2	635.2	636.8	638.3
12.5°	623.1	624.7	629.2	632.2	632.2
15°	615.6	617.1	621.6	624.7	626.2
17.5°	606.5	609.5	614.1	617.1	618.6
20°	594.4	597.4	603.5	608.0	609.5
22.5°	583.8	586.8	592.9	597.4	600.5
25°	571.7	574.7	583.8	586.8	589.9
27.5°	556.6	559.6	567.2	573.2	577.8
30°	541.5	544.5	553.6	561.1	564.2
32.5°	524.8	529.4	540.0	546.0	550.5
35°	506.7	511.2	521.8	532.4	536.9
37.5°	488.5	493.1	503.7	517.3	523.3
40°	467.4	473.4	487.0	505.2	508.2
42.5°	447.7	455.3	467.4	488.5	496.1
45°	425.0	432.6	449.2	471.9	484.0
47.5°	403.8	411.4	429.5	456.8	471.9
50°	378.1	388.7	411.4	443.2	458.3
52.5°	353.9	363.0	393.2	428.0	446.2
55°	328.2	338.8	375.1	412.9	432.6
57.5°	305.5	314.6	355.4	397.8	420.5
60°	276.8	288.9	335.8	381.1	403.8
62.5°	246.5	264.7	316.1	363.0	387.2
65°	217.8	239.0	298.0	344.8	369.0
67.5°	192.1	214.8	275.3	325.2	347.9
70°	161.8	190.6	252.6	301.0	326.7
72.5°	134.6	166.4	226.9	275.3	298.0
75°	107.4	142.2	201.2	242.0	255.6
77.5°	83.2	116.5	172.4	184.5	186.0
80°	62.0	92.3	128.6	130.1	134.6
82.5°	42.3	65.0	83.2	90.7	92.3
85°	27.2	37.8	46.9	48.4	51.4
87.5°	12.1	13.6	16.6	15.1	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)