

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: P308221

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P308221
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CP125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2456.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

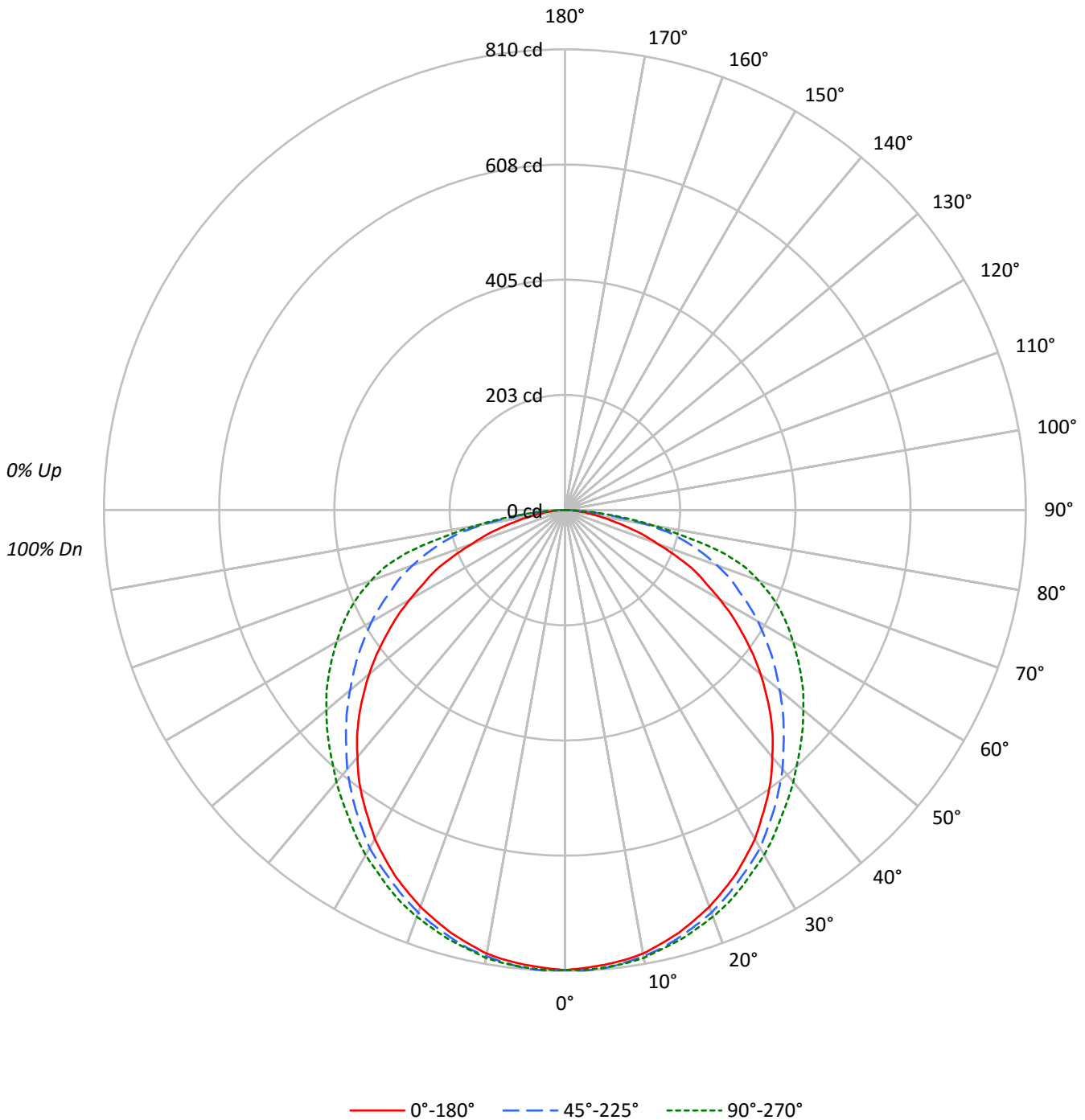
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2176	2176	2176
5°	2168	2185	2180
10°	2163	2176	2184
15°	2145	2167	2180
20°	2125	2156	2178
25°	2102	2139	2176
30°	2075	2133	2176
35°	2036	2107	2173
40°	1992	2090	2193
45°	1946	2069	2229
50°	1881	2063	2290
55°	1795	2079	2377
60°	1693	2110	2493
65°	1598	2150	2663
70°	1365	2243	2852
75°	1144	2335	2964
80°	936	2256	2473
85°	812	1673	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	3.1
10°-20°	219.3	8.9
20°-30°	332.3	13.5
30°-40°	401.2	16.3
40°-50°	421.6	17.2
50°-60°	396.7	16.2
60°-70°	330.7	13.5
70°-80°	219.1	8.9
80°-90°	58.4	2.4
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°	628.2	25.6
0°-40°	1029.4	41.9
0°-60°	1847.7	75.2
0°-90°	2456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	802	804	809	809	807	76
15°	770	773	778	781	782	217
25°	708	713	720	730	733	326
35°	620	626	641	655	662	387
45°	511	519	544	572	586	394
55°	383	400	443	488	507	342
65°	251	273	338	394	418	244
75°	110	153	225	271	285	119
85°	26	40	54	59	59	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.7	808.7	808.7	808.7	808.7
2.5°	805.6	807.2	810.3	810.3	808.7
5°	802.5	804.1	808.7	808.7	807.2
7.5°	797.9	799.4	802.5	805.6	804.1
10°	791.7	793.2	796.3	799.4	799.4
12.5°	780.8	782.4	788.6	790.1	790.1
15°	770.0	773.1	777.7	780.8	782.4
17.5°	756.1	759.2	765.4	771.6	771.6
20°	742.1	745.2	753.0	759.2	760.7
22.5°	725.1	729.7	737.5	745.2	748.3
25°	708.0	712.7	720.4	729.7	732.8
27.5°	687.9	692.5	703.4	714.2	715.8
30°	667.7	672.4	686.3	695.6	700.3
32.5°	643.0	649.2	663.1	677.0	681.7
35°	619.7	625.9	641.4	655.4	661.5
37.5°	594.9	601.1	618.2	635.2	643.0
40°	567.0	574.8	594.9	613.5	624.4
42.5°	540.7	548.5	568.6	593.4	604.2
45°	511.3	519.0	543.8	571.7	585.6
47.5°	480.3	489.6	519.0	553.1	567.0
50°	449.3	460.1	492.7	531.4	546.9
52.5°	416.8	430.7	467.9	509.7	528.3
55°	382.7	399.7	443.1	488.0	506.6
57.5°	350.1	365.6	416.8	464.8	484.9
60°	314.5	334.6	392.0	441.5	463.2
62.5°	280.4	302.1	365.6	418.3	441.5
65°	251.0	272.7	337.7	393.5	418.3
67.5°	212.3	241.7	314.5	367.2	392.0
70°	173.5	213.8	285.1	339.3	362.5
72.5°	144.1	182.8	255.6	309.9	331.5
75°	110.0	153.4	224.6	271.1	285.1
77.5°	82.1	127.0	192.1	215.4	216.9
80°	60.4	97.6	145.6	153.4	159.6
82.5°	41.8	68.2	94.5	103.8	106.9
85°	26.3	40.3	54.2	58.9	58.9
87.5°	13.9	15.5	18.6	18.6	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)