

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: P312699

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-RDP-CA125-W2A-U-5000K**

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: P312699
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: 22FCZ2-39HE-UNV-L83050-RDP-CA125-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 5000K 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: 2508.0 lumens
Efficiency: N/A
Efficacy: 73.8 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

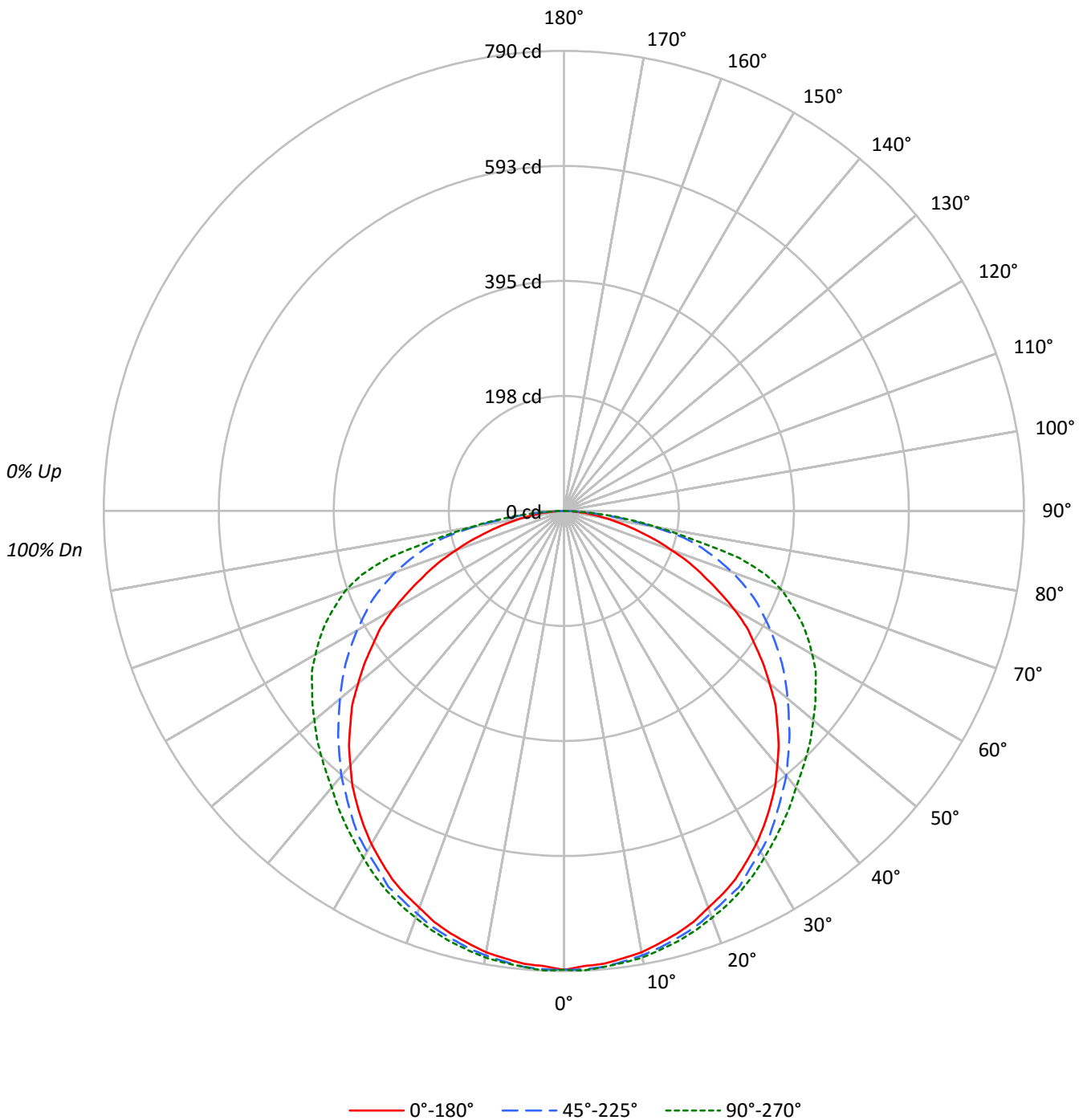
Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2120	2120	2120
5°	2108	2123	2123
10°	2102	2117	2128
15°	2092	2113	2128
20°	2076	2108	2129
25°	2071	2115	2136
30°	2052	2098	2138
35°	2031	2091	2152
40°	2003	2087	2178
45°	1973	2085	2247
50°	1931	2101	2340
55°	1879	2147	2476
60°	1817	2204	2651
65°	1692	2315	2867
70°	1553	2424	3135
75°	1362	2551	3242
80°	1172	2430	2545
85°	1025	1766	1936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.0
10°-20°	214.0	8.5
20°-30°	326.4	13.0
30°-40°	398.6	15.9
40°-50°	426.2	17.0
50°-60°	411.4	16.4
60°-70°	354.1	14.1
70°-80°	239.6	9.6
80°-90°	63.2	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°	614.9	24.5
0°-40°	1013.5	40.4
0°-60°	1851.1	73.8
0°-90°	2508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2508.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	780	782	786	786	786	74
15°	751	753	758	762	764	212
25°	697	701	712	716	720	321
35°	618	624	636	649	655	387
45°	518	528	548	576	590	400
55°	400	413	458	504	528	359
65°	266	292	364	421	450	264
75°	131	173	245	295	312	141
85°	33	46	57	59	63	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	787.8	787.8	787.8	787.8	787.8
2.5°	782.3	784.1	787.8	787.8	789.7
5°	780.4	782.3	786.0	786.0	786.0
7.5°	774.9	776.7	780.4	782.3	782.3
10°	769.4	771.2	774.9	776.7	778.6
12.5°	760.1	762.0	767.5	771.2	771.2
15°	750.9	752.8	758.3	762.0	763.8
17.5°	739.8	743.5	749.1	752.8	754.6
20°	725.1	728.8	736.1	741.7	743.5
22.5°	712.2	715.9	723.2	728.8	732.5
25°	697.4	701.1	712.2	715.9	719.5
27.5°	679.0	682.6	691.9	699.2	704.8
30°	660.5	664.2	675.3	684.5	688.2
32.5°	640.2	645.7	658.7	666.0	671.6
35°	618.1	623.6	636.5	649.4	655.0
37.5°	595.9	601.5	614.4	631.0	638.4
40°	570.1	577.5	594.1	616.2	619.9
42.5°	546.1	555.3	570.1	595.9	605.2
45°	518.4	527.7	548.0	575.6	590.4
47.5°	492.6	501.8	524.0	557.2	575.6
50°	461.2	474.2	501.8	540.6	559.0
52.5°	431.7	442.8	479.7	522.1	544.3
55°	400.4	413.3	457.6	503.7	527.7
57.5°	372.7	383.8	433.6	485.2	512.9
60°	337.6	352.4	409.6	464.9	492.6
62.5°	300.7	322.9	385.6	442.8	472.3
65°	265.7	291.5	363.5	420.7	450.2
67.5°	234.3	262.0	335.8	396.7	424.3
70°	197.4	232.5	308.1	367.2	398.5
72.5°	164.2	202.9	276.7	335.8	363.5
75°	131.0	173.4	245.4	295.2	311.8
77.5°	101.5	142.1	210.3	225.1	226.9
80°	75.6	112.5	156.8	158.7	164.2
82.5°	51.7	79.3	101.5	110.7	112.5
85°	33.2	46.1	57.2	59.0	62.7
87.5°	14.8	16.6	20.3	18.4	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)