

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: P308533

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP125-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: P308533
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-L82765-RDP-CP125-W2A-U-5000K
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: 2388.0 lumens
Efficiency: N/A
Efficacy: 71.9 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

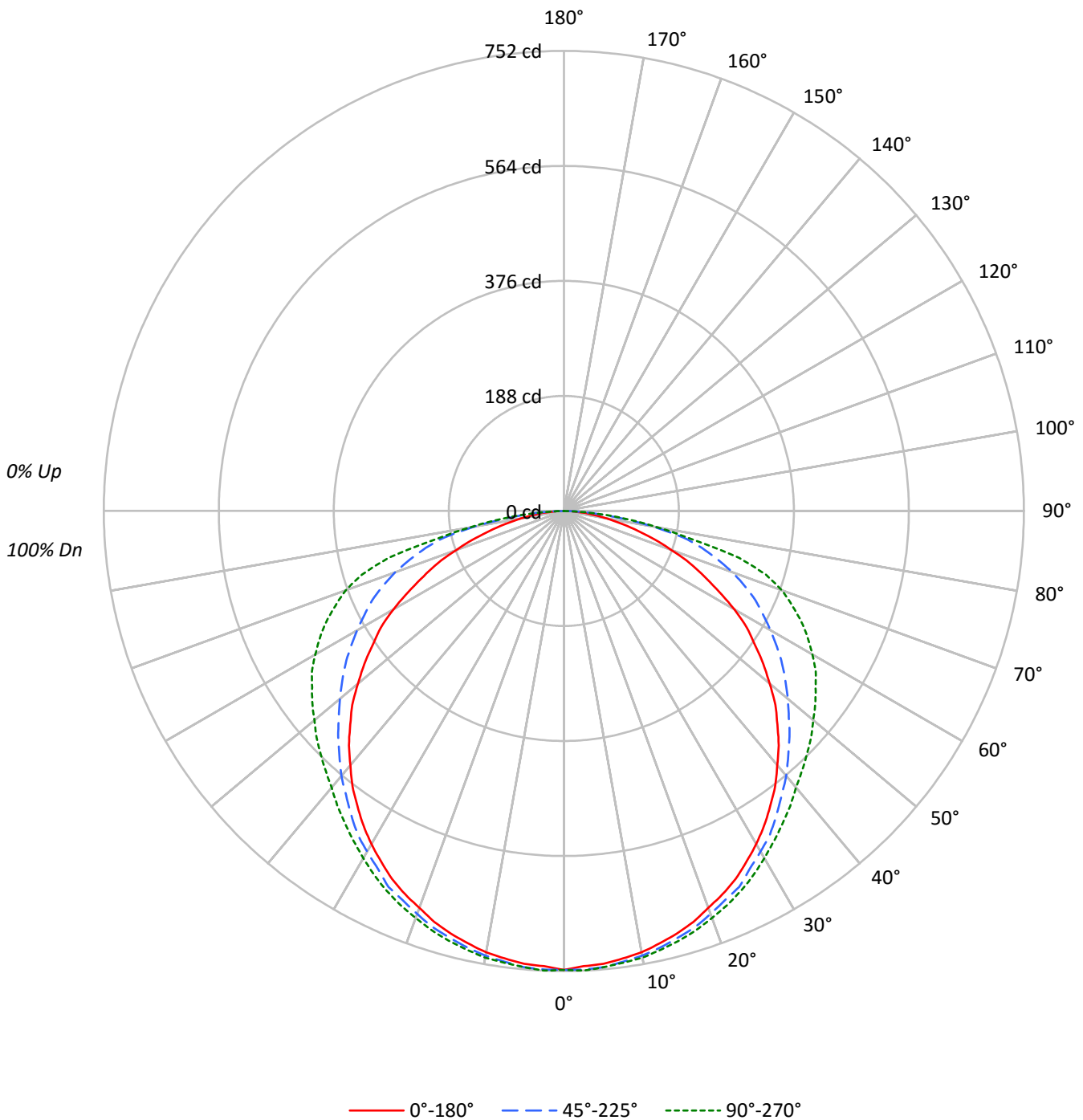
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2019	2019	2019
5°	2007	2022	2022
10°	2002	2016	2026
15°	1992	2011	2026
20°	1977	2007	2027
25°	1972	2013	2034
30°	1954	1998	2036
35°	1933	1991	2049
40°	1907	1987	2074
45°	1878	1985	2139
50°	1839	2000	2228
55°	1788	2044	2357
60°	1730	2099	2524
65°	1611	2204	2729
70°	1479	2308	2985
75°	1297	2429	3087
80°	1116	2314	2422
85°	976	1683	1843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.0	3.0
10°-20°	203.7	8.5
20°-30°	310.8	13.0
30°-40°	379.5	15.9
40°-50°	405.8	17.0
50°-60°	391.7	16.4
60°-70°	337.2	14.1
70°-80°	228.1	9.6
80°-90°	60.2	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°	585.5	24.5
0°-40°	965.0	40.4
0°-60°	1762.5	73.8
0°-90°	2388.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2388.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	743	745	748	748	748	71
15°	715	717	722	726	727	202
25°	664	668	678	682	685	306
35°	588	594	606	618	624	368
45°	494	502	522	548	562	381
55°	381	394	436	480	502	342
65°	253	278	346	400	429	252
75°	125	165	234	281	297	134
85°	32	44	54	56	60	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	750.1	750.1	750.1	750.1	750.1
2.5°	744.8	746.6	750.1	750.1	751.9
5°	743.1	744.8	748.4	748.4	748.4
7.5°	737.8	739.6	743.1	744.8	744.8
10°	732.5	734.3	737.8	739.6	741.3
12.5°	723.8	725.5	730.8	734.3	734.3
15°	715.0	716.7	722.0	725.5	727.3
17.5°	704.4	708.0	713.2	716.7	718.5
20°	690.4	693.9	700.9	706.2	708.0
22.5°	678.1	681.6	688.6	693.9	697.4
25°	664.0	667.5	678.1	681.6	685.1
27.5°	646.5	650.0	658.8	665.8	671.1
30°	628.9	632.4	643.0	651.7	655.3
32.5°	609.6	614.8	627.1	634.2	639.4
35°	588.5	593.8	606.1	618.4	623.6
37.5°	567.4	572.7	585.0	600.8	607.8
40°	542.8	549.8	565.7	586.7	590.3
42.5°	520.0	528.8	542.8	567.4	576.2
45°	493.6	502.4	521.7	548.1	562.1
47.5°	469.0	477.8	498.9	530.5	548.1
50°	439.2	451.5	477.8	514.7	532.3
52.5°	411.1	421.6	456.7	497.1	518.2
55°	381.2	393.5	435.7	479.6	502.4
57.5°	354.9	365.4	412.8	462.0	488.4
60°	321.5	335.5	390.0	442.7	469.0
62.5°	286.3	307.4	367.2	421.6	449.7
65°	253.0	277.6	346.1	400.5	428.6
67.5°	223.1	249.5	319.7	377.7	404.0
70°	188.0	221.3	293.4	349.6	379.4
72.5°	156.3	193.2	263.5	319.7	346.1
75°	124.7	165.1	233.6	281.1	296.9
77.5°	96.6	135.3	200.3	214.3	216.1
80°	72.0	107.2	149.3	151.1	156.3
82.5°	49.2	75.5	96.6	105.4	107.2
85°	31.6	43.9	54.5	56.2	59.7
87.5°	14.1	15.8	19.3	17.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)