

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: P308535

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP125-W2A-U-5700K**

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: P308535
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-5700K
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: 2419.0 lumens
Efficiency: N/A
Efficacy: 72.6 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

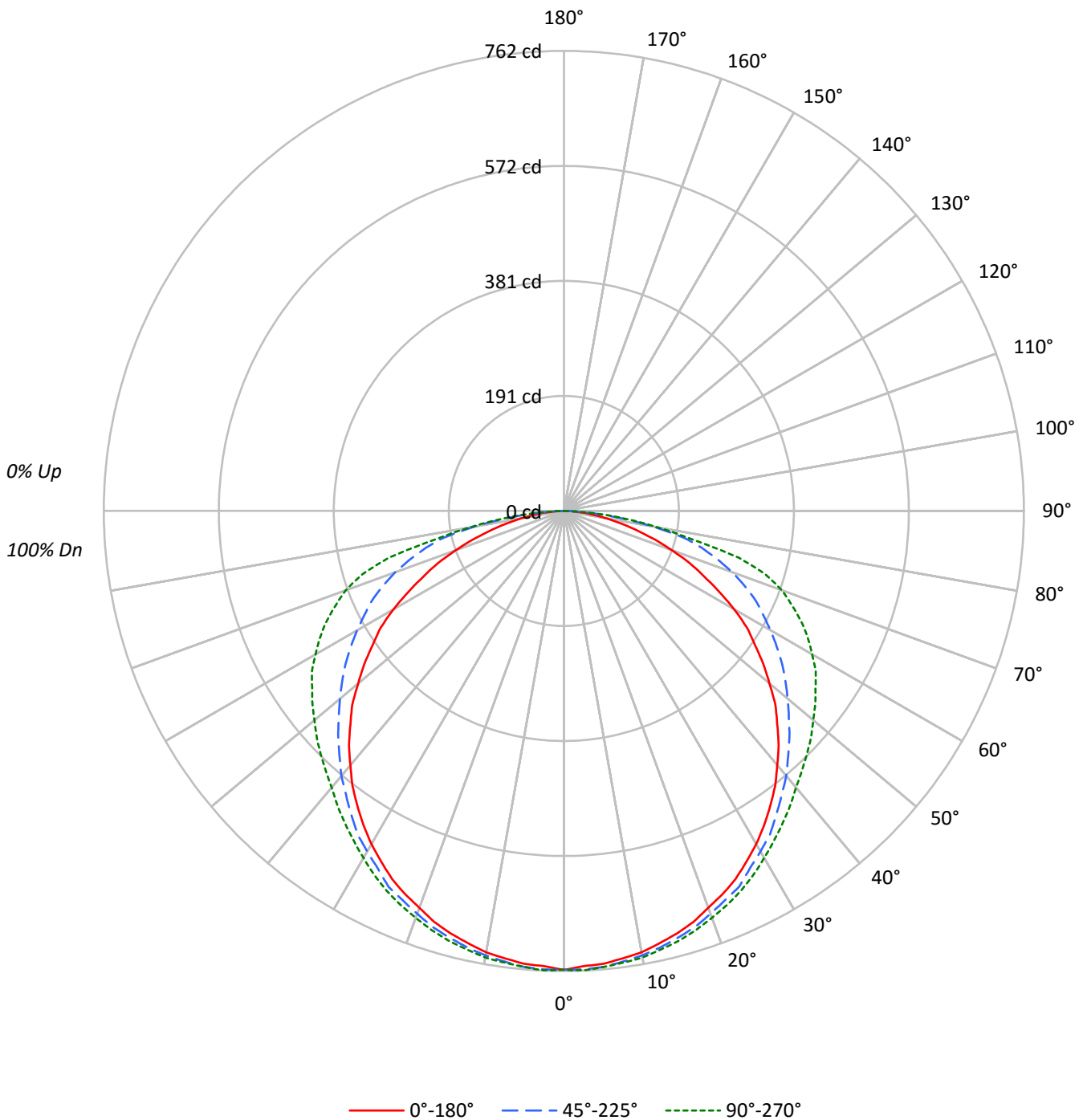
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2045	2045	2045
5°	2033	2048	2048
10°	2028	2042	2052
15°	2018	2038	2052
20°	2003	2033	2054
25°	1997	2040	2061
30°	1980	2024	2063
35°	1958	2017	2075
40°	1932	2013	2100
45°	1903	2011	2167
50°	1863	2026	2257
55°	1812	2070	2388
60°	1753	2126	2557
65°	1631	2232	2765
70°	1498	2338	3024
75°	1313	2461	3126
80°	1131	2345	2455
85°	988	1704	1868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	3.0
10°-20°	206.4	8.5
20°-30°	314.9	13.0
30°-40°	384.4	15.9
40°-50°	411.1	17.0
50°-60°	396.8	16.4
60°-70°	341.6	14.1
70°-80°	231.1	9.6
80°-90°	61.0	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°	593.1	24.5
0°-40°	977.6	40.4
0°-60°	1785.4	73.8
0°-90°	2419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	760	760	760	760	760	
5°	753	754	758	758	758	71
15°	724	726	731	735	737	204
25°	673	676	687	690	694	310
35°	596	602	614	626	632	373
45°	500	509	528	555	569	386
55°	386	399	441	486	509	346
65°	256	281	351	406	434	255
75°	126	167	237	285	301	136
85°	32	44	55	57	60	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	759.9	759.9	759.9	759.9	759.9
2.5°	754.5	756.3	759.9	759.9	761.6
5°	752.7	754.5	758.1	758.1	758.1
7.5°	747.4	749.2	752.7	754.5	754.5
10°	742.1	743.8	747.4	749.2	751.0
12.5°	733.2	734.9	740.3	743.8	743.8
15°	724.3	726.0	731.4	734.9	736.7
17.5°	713.6	717.1	722.5	726.0	727.8
20°	699.3	702.9	710.0	715.4	717.1
22.5°	686.9	690.4	697.6	702.9	706.5
25°	672.7	676.2	686.9	690.4	694.0
27.5°	654.9	658.4	667.3	674.4	679.8
30°	637.1	640.6	651.3	660.2	663.8
32.5°	617.5	622.8	635.3	642.4	647.7
35°	596.1	601.5	613.9	626.4	631.7
37.5°	574.8	580.1	592.6	608.6	615.7
40°	549.9	557.0	573.0	594.4	597.9
42.5°	526.7	535.6	549.9	574.8	583.7
45°	500.0	508.9	528.5	555.2	569.4
47.5°	475.1	484.0	505.4	537.4	555.2
50°	444.9	457.3	484.0	521.4	539.2
52.5°	416.4	427.1	462.7	503.6	525.0
55°	386.2	398.6	441.3	485.8	508.9
57.5°	359.5	370.1	418.2	468.0	494.7
60°	325.7	339.9	395.1	448.4	475.1
62.5°	290.1	311.4	371.9	427.1	455.6
65°	256.2	281.2	350.6	405.7	434.2
67.5°	226.0	252.7	323.9	382.6	409.3
70°	190.4	224.2	297.2	354.1	384.4
72.5°	158.4	195.7	266.9	323.9	350.6
75°	126.3	167.3	236.7	284.7	300.7
77.5°	97.9	137.0	202.9	217.1	218.9
80°	73.0	108.6	151.3	153.0	158.4
82.5°	49.8	76.5	97.9	106.8	108.6
85°	32.0	44.5	55.2	56.9	60.5
87.5°	14.2	16.0	19.6	17.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)