

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: P308531

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP125-W2A-U-4000K**

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: P308531
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-4000K
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: 2315.0 lumens
Efficiency: N/A
Efficacy: 70.6 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

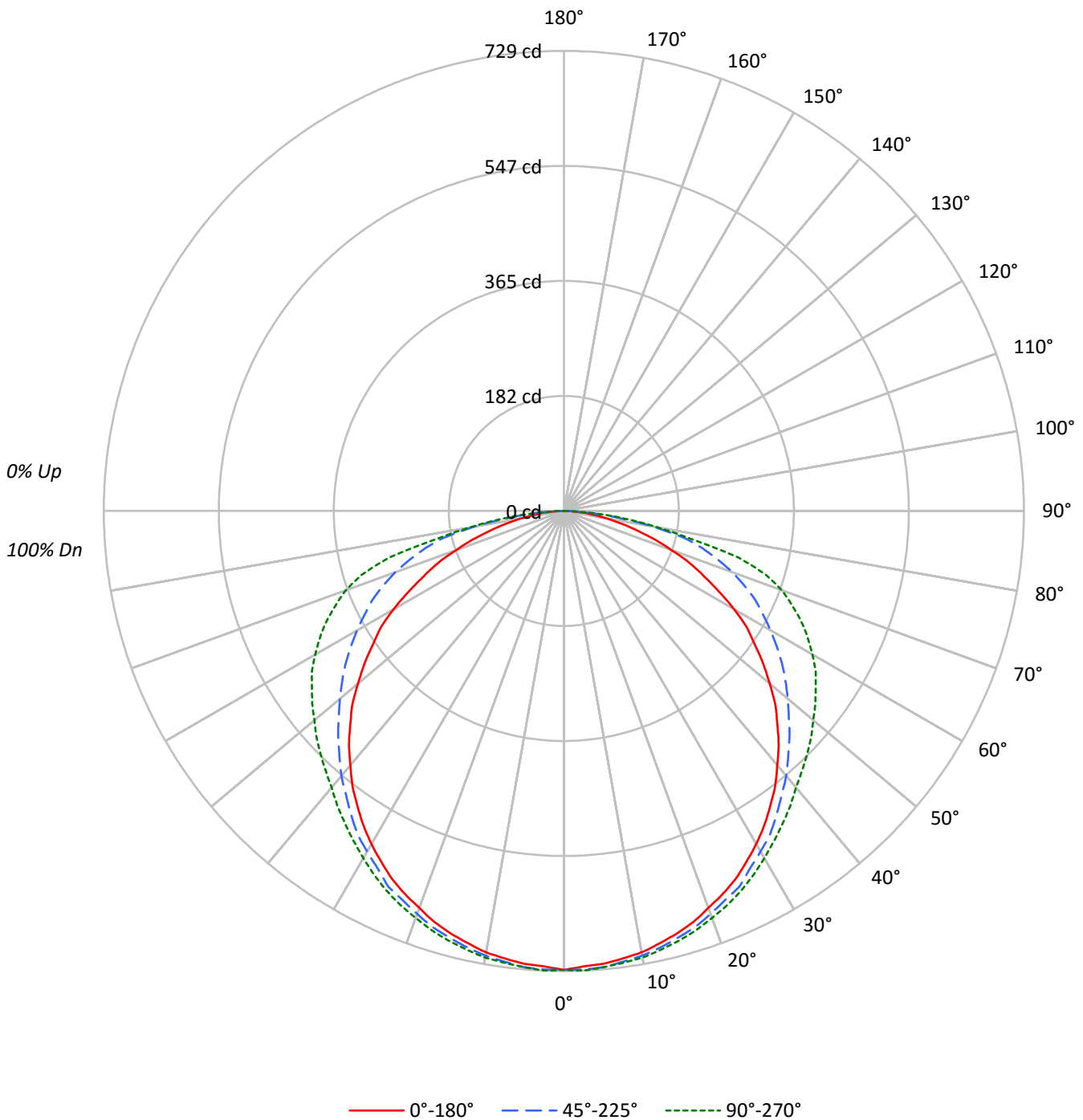
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1957	1957	1957
5°	1946	1960	1960
10°	1941	1955	1964
15°	1931	1950	1964
20°	1917	1946	1965
25°	1911	1952	1972
30°	1895	1937	1974
35°	1874	1930	1986
40°	1848	1926	2010
45°	1821	1925	2074
50°	1783	1939	2160
55°	1734	1981	2285
60°	1677	2035	2447
65°	1561	2136	2646
70°	1434	2238	2894
75°	1257	2355	2992
80°	1082	2244	2349
85°	948	1630	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	3.0
10°-20°	197.5	8.5
20°-30°	301.3	13.0
30°-40°	367.9	15.9
40°-50°	393.4	17.0
50°-60°	379.7	16.4
60°-70°	326.9	14.1
70°-80°	221.2	9.6
80°-90°	58.4	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°	567.6	24.5
0°-40°	935.5	40.4
0°-60°	1708.6	73.8
0°-90°	2315.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2315.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	720	722	726	726	726	68
15°	693	695	700	703	705	196
25°	644	647	657	661	664	296
35°	570	576	588	600	605	357
45°	478	487	506	531	545	369
55°	370	382	422	465	487	331
65°	245	269	336	388	416	244
75°	121	160	226	272	288	130
85°	31	43	53	54	58	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.2	727.2	727.2	727.2	727.2
2.5°	722.1	723.8	727.2	727.2	728.9
5°	720.4	722.1	725.5	725.5	725.5
7.5°	715.3	717.0	720.4	722.1	722.1
10°	710.2	711.9	715.3	717.0	718.7
12.5°	701.6	703.3	708.4	711.9	711.9
15°	693.1	694.8	699.9	703.3	705.0
17.5°	682.9	686.3	691.4	694.8	696.5
20°	669.3	672.7	679.5	684.6	686.3
22.5°	657.4	660.8	667.6	672.7	676.1
25°	643.7	647.1	657.4	660.8	664.2
27.5°	626.7	630.1	638.6	645.4	650.5
30°	609.7	613.1	623.3	631.8	635.2
32.5°	590.9	596.1	608.0	614.8	619.9
35°	570.5	575.6	587.5	599.5	604.6
37.5°	550.1	555.2	567.1	582.4	589.2
40°	526.2	533.0	548.4	568.8	572.2
42.5°	504.1	512.6	526.2	550.1	558.6
45°	478.5	487.1	505.8	531.3	545.0
47.5°	454.7	463.2	483.7	514.3	531.3
50°	425.8	437.7	463.2	499.0	516.0
52.5°	398.5	408.7	442.8	481.9	502.4
55°	369.6	381.5	422.3	464.9	487.1
57.5°	344.0	354.2	400.2	447.9	473.4
60°	311.6	325.3	378.1	429.2	454.7
62.5°	277.6	298.0	355.9	408.7	436.0
65°	245.2	269.1	335.5	388.3	415.5
67.5°	216.3	241.8	309.9	366.1	391.7
70°	182.2	214.6	284.4	338.9	367.8
72.5°	151.6	187.3	255.5	309.9	335.5
75°	120.9	160.1	226.5	272.5	287.8
77.5°	93.7	131.1	194.1	207.8	209.5
80°	69.8	103.9	144.8	146.5	151.6
82.5°	47.7	73.2	93.7	102.2	103.9
85°	30.7	42.6	52.8	54.5	57.9
87.5°	13.6	15.3	18.7	17.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)