

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: P308709

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP125-W2A-U-3000K**

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: P308709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2368.0 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

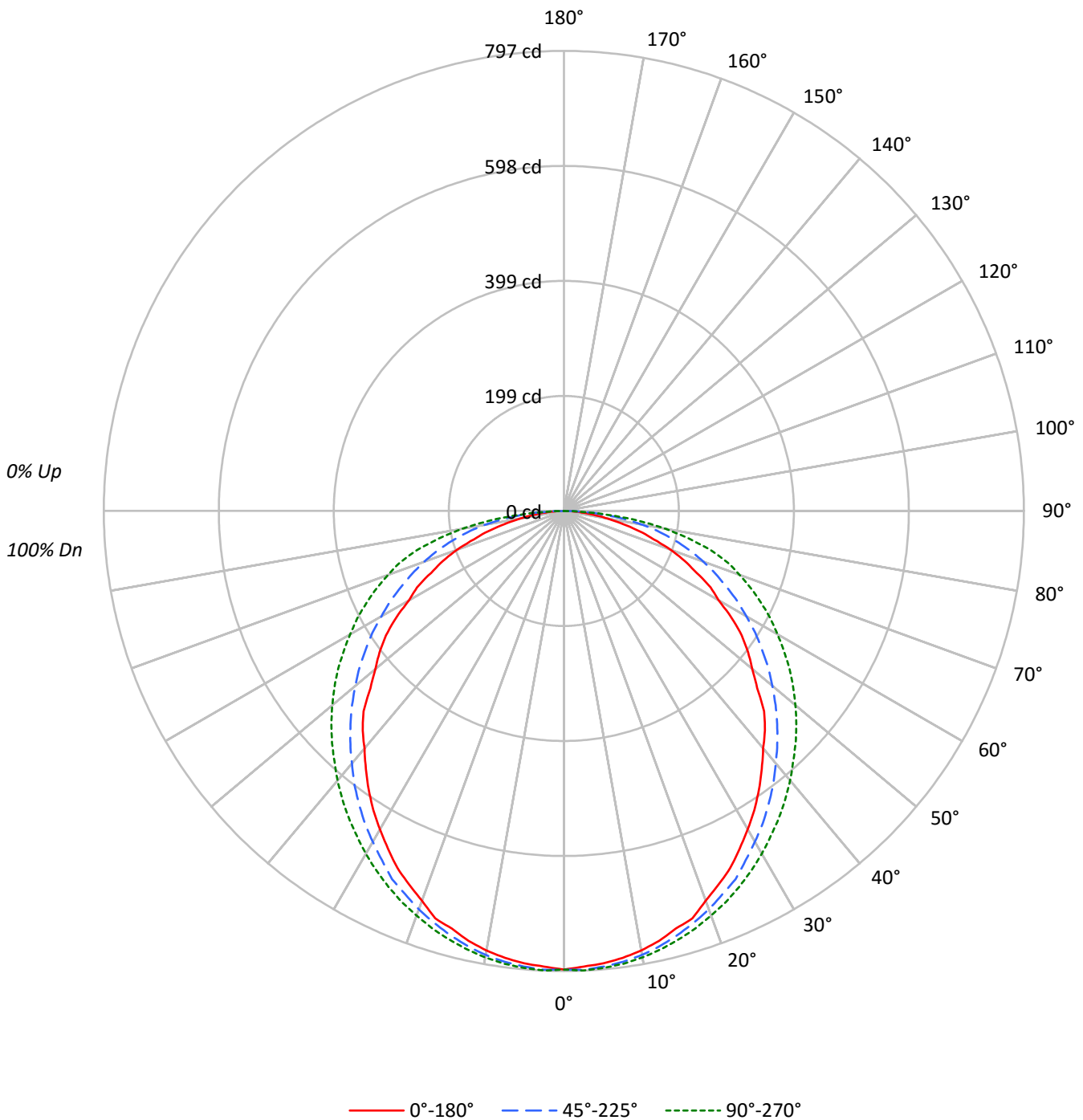
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2138	2138	2138
5°	2125	2140	2146
10°	2112	2134	2146
15°	2087	2119	2141
20°	2058	2103	2135
25°	2026	2090	2133
30°	1979	2057	2131
35°	1936	2033	2133
40°	1887	2007	2142
45°	1867	1988	2161
50°	1784	1974	2192
55°	1765	1967	2238
60°	1665	1964	2300
65°	1617	1977	2403
70°	1552	2024	2550
75°	1414	2086	2746
80°	1212	2160	2775
85°	979	2066	2381



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	3.2
10°-20°	214.5	9.1
20°-30°	322.8	13.6
30°-40°	387.4	16.4
40°-50°	404.9	17.1
50°-60°	377.3	15.9
60°-70°	309.5	13.1
70°-80°	208.5	8.8
80°-90°	67.9	2.9
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°	612.4	25.9
0°-40°	999.8	42.2
0°-60°	1782.0	75.3
0°-90°	2368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2368.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	787	789	792	793	794	75
15°	749	754	760	767	768	212
25°	682	687	704	714	718	314
35°	589	597	619	640	649	368
45°	491	494	522	554	568	375
55°	376	383	419	459	477	333
65°	254	265	310	356	377	253
75°	136	151	201	246	264	143
85°	32	45	67	78	77	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	794.5	794.5	794.5	794.5	794.5
2.5°	790.0	792.2	795.6	796.8	796.8
5°	786.6	788.8	792.2	793.4	794.5
7.5°	780.9	783.2	787.7	790.0	791.1
10°	773.0	775.2	780.9	784.3	785.4
12.5°	762.8	765.0	771.8	776.4	777.5
15°	749.1	753.7	760.5	767.3	768.4
17.5°	740.1	738.9	748.0	755.9	758.2
20°	718.5	724.2	734.4	743.5	745.7
22.5°	700.4	704.9	718.5	728.7	733.3
25°	682.3	686.8	703.8	714.0	718.5
27.5°	659.6	666.4	682.3	697.0	702.7
30°	636.9	643.7	661.9	678.9	685.7
32.5°	614.3	622.2	641.5	659.6	667.5
35°	589.3	597.3	618.8	640.3	649.4
37.5°	563.3	573.5	596.1	619.9	630.1
40°	537.2	547.4	571.2	598.4	609.7
42.5°	515.7	520.2	547.4	576.9	588.2
45°	490.7	494.1	522.5	554.2	567.8
47.5°	454.5	466.9	497.5	532.7	546.3
50°	426.1	439.7	471.5	508.9	523.6
52.5°	402.3	411.4	446.5	483.9	500.9
55°	376.3	383.1	419.3	459.0	477.1
57.5°	344.5	357.0	393.3	434.1	452.2
60°	309.4	325.3	364.9	409.1	427.3
62.5°	286.7	295.8	338.9	383.1	403.5
65°	253.9	265.2	310.5	355.9	377.4
67.5°	226.7	238.0	284.5	329.8	351.3
70°	197.2	208.5	257.3	302.6	324.1
72.5°	163.2	179.1	230.1	275.4	298.1
75°	136.0	150.7	200.6	245.9	264.1
77.5°	105.4	124.7	171.1	208.5	222.1
80°	78.2	97.5	139.4	166.6	179.1
82.5°	53.3	72.5	104.3	124.7	131.5
85°	31.7	45.3	66.9	78.2	77.1
87.5°	14.7	19.3	27.2	27.2	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)