

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: P309290

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CA125-W2A-U-5500K**

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: P309290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L82765-HRP-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5500K 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: 2556.0 lumens
Efficiency: N/A
Efficacy: 88.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

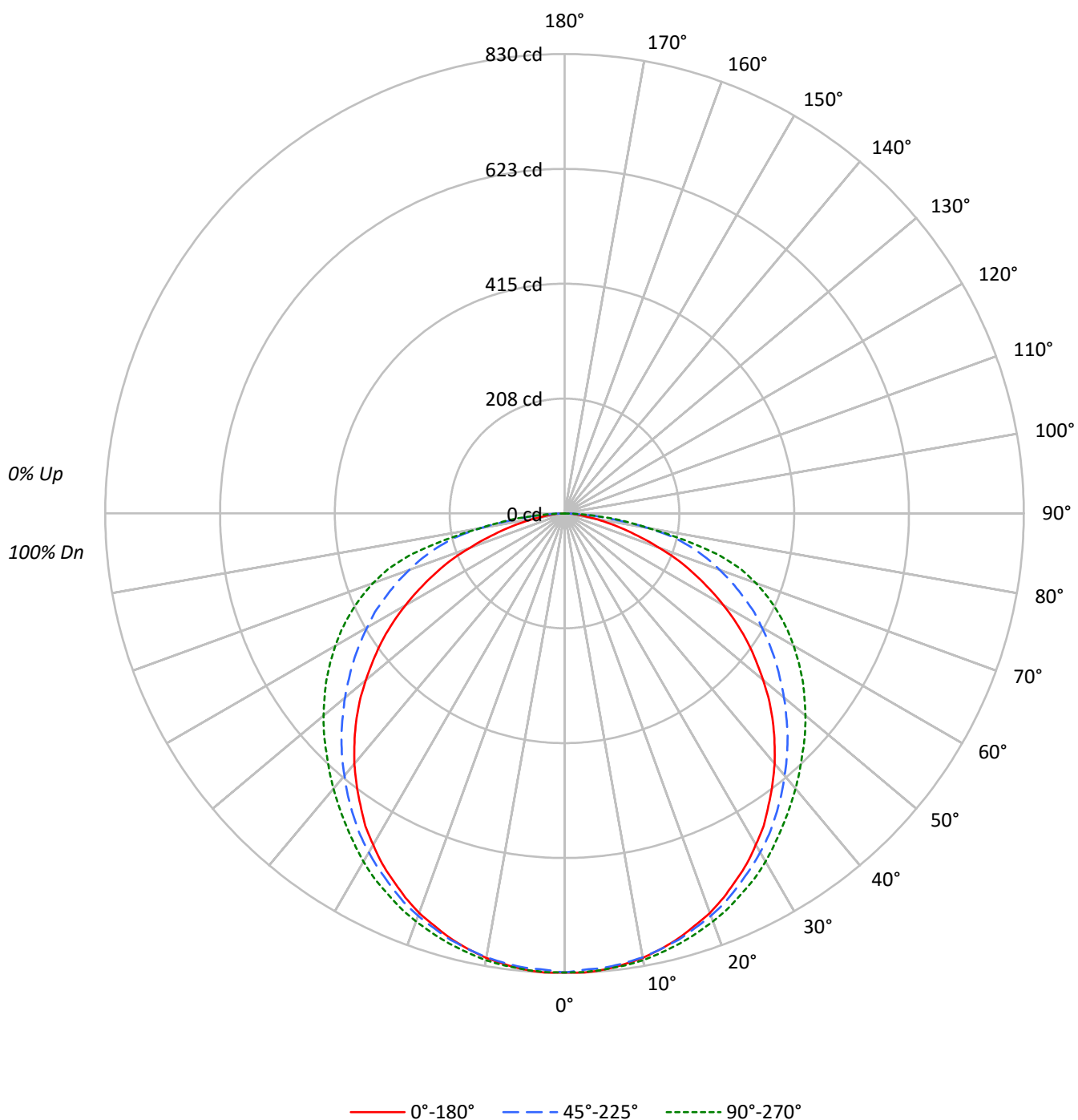
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1116	1116	1116
5°	1117	1113	1117
10°	1114	1113	1120
15°	1108	1110	1121
20°	1100	1108	1123
25°	1087	1102	1125
30°	1074	1099	1129
35°	1056	1093	1130
40°	1038	1086	1141
45°	1014	1085	1159
50°	981	1084	1189
55°	946	1092	1232
60°	893	1109	1287
65°	825	1134	1359
70°	720	1174	1448
75°	584	1235	1496
80°	431	1210	1210
85°	330	892	1008



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	3.1
10°-20°	225.6	8.8
20°-30°	343.4	13.4
30°-40°	417.0	16.3
40°-50°	440.6	17.2
50°-60°	415.7	16.3
60°-70°	345.7	13.5
70°-80°	227.4	8.9
80°-90°	62.0	2.4
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°	647.6	25.3
0°-40°	1064.6	41.7
0°-60°	1920.9	75.2
0°-90°	2556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	827	827	824	827	827	79
15°	795	796	797	805	805	224
25°	732	736	743	756	758	338
35°	643	651	666	683	688	403
45°	533	544	570	598	609	410
55°	403	420	466	509	525	359
65°	259	289	356	409	427	256
75°	112	164	238	281	288	121
85°	21	47	58	64	65	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	829.3	829.3	829.3	829.3	829.3
2.5°	830.4	829.3	825.0	829.3	829.3
5°	827.2	827.2	823.9	827.2	827.2
7.5°	821.8	821.8	819.7	823.9	823.9
10°	815.4	815.4	814.3	819.7	819.7
12.5°	805.8	806.8	805.8	812.2	812.2
15°	795.1	796.1	797.2	804.7	804.7
17.5°	781.1	783.3	785.4	794.0	795.1
20°	768.3	769.4	773.7	783.3	784.4
22.5°	751.2	754.4	759.7	769.4	772.6
25°	731.9	736.2	742.6	755.5	757.6
27.5°	713.7	716.9	725.5	739.4	743.7
30°	691.3	696.6	707.3	721.2	726.6
32.5°	669.9	675.2	688.0	703.0	707.3
35°	643.1	650.6	665.6	682.7	688.0
37.5°	617.4	624.9	643.1	662.4	668.8
40°	590.7	599.2	618.5	641.0	649.5
42.5°	561.8	573.6	595.0	619.6	629.2
45°	532.9	543.6	570.3	598.2	608.9
47.5°	501.9	514.7	543.6	576.8	589.6
50°	468.7	484.7	517.9	554.3	568.2
52.5°	435.5	453.7	491.2	531.8	546.8
55°	403.4	420.5	465.5	509.3	525.4
57.5°	368.1	389.5	438.7	485.8	501.9
60°	331.7	355.3	412.0	461.2	478.3
62.5°	295.3	322.1	386.3	435.5	453.7
65°	259.0	288.9	356.3	408.8	427.0
67.5°	223.6	256.8	328.5	380.9	399.1
70°	183.0	224.7	298.5	349.9	368.1
72.5°	145.5	193.7	269.7	317.8	333.9
75°	112.4	163.7	237.6	281.4	287.8
77.5°	82.4	133.8	204.4	219.4	220.4
80°	55.6	107.0	156.2	154.1	156.2
82.5°	36.4	80.3	98.4	110.2	111.3
85°	21.4	47.1	57.8	64.2	65.3
87.5°	10.7	16.1	20.3	21.4	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)