

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: P309374

Luminaire Tested: **24FCZ2-40-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P309374
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: 24FCZ2-40-UNV-L82765-HRP-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 2567.0 lumens
Efficiency: N/A
Efficacy: 78.5 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

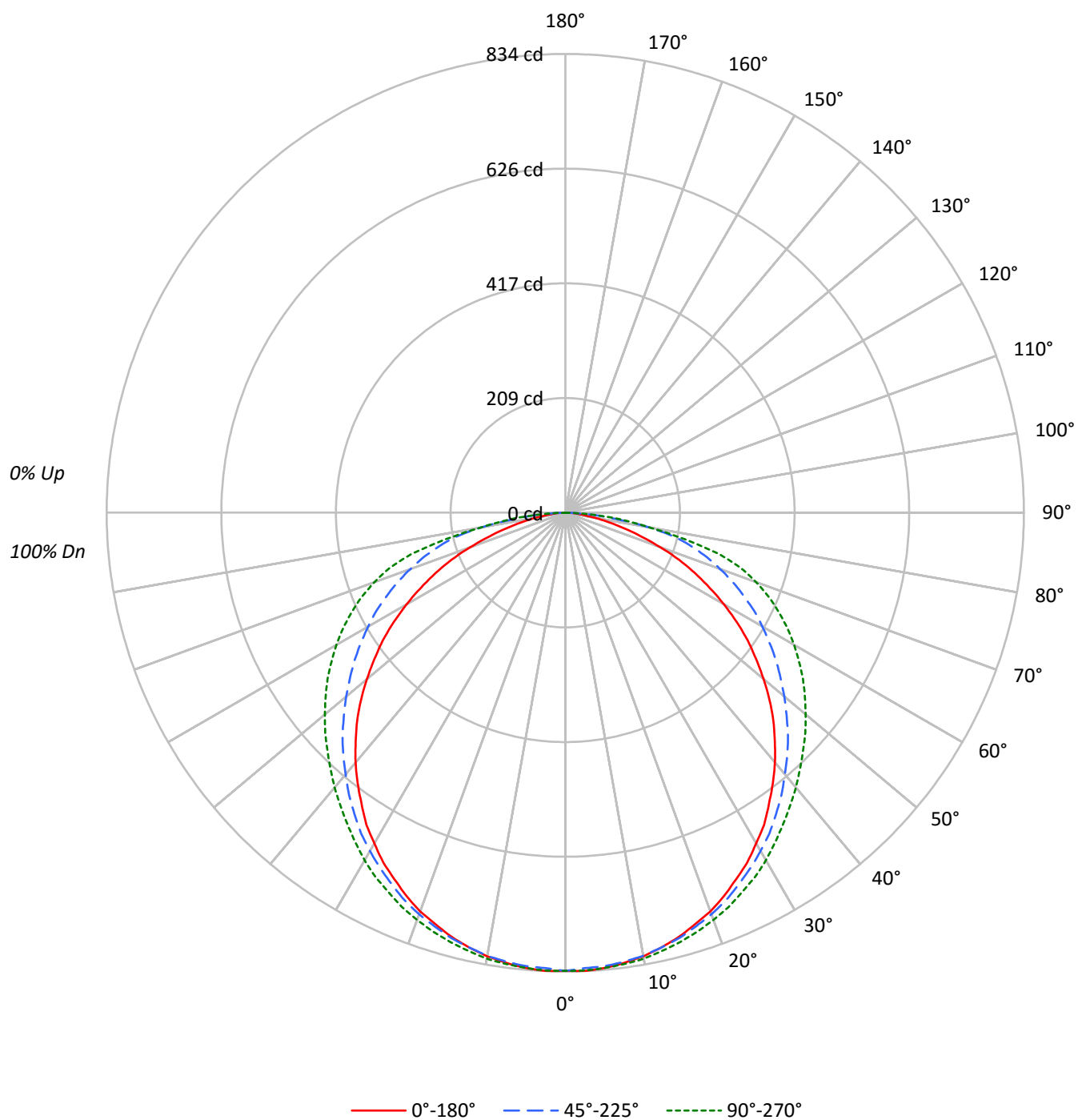
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1121	1121	1121
5°	1122	1118	1122
10°	1119	1117	1125
15°	1112	1115	1126
20°	1105	1113	1128
25°	1091	1107	1130
30°	1079	1104	1134
35°	1061	1098	1135
40°	1042	1091	1146
45°	1018	1090	1164
50°	985	1089	1194
55°	950	1097	1238
60°	896	1113	1293
65°	828	1139	1365
70°	723	1179	1454
75°	586	1240	1503
80°	433	1216	1216
85°	332	895	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	3.1
10°-20°	226.6	8.8
20°-30°	344.9	13.4
30°-40°	418.8	16.3
40°-50°	442.5	17.2
50°-60°	417.5	16.3
60°-70°	347.2	13.5
70°-80°	228.4	8.9
80°-90°	62.3	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°	650.4	25.3
0°-40°	1069.2	41.7
0°-60°	1929.2	75.2
0°-90°	2567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	831	831	828	831	831	79
15°	798	800	801	808	808	225
25°	735	739	746	759	761	339
35°	646	653	668	686	691	404
45°	535	546	573	601	612	412
55°	405	422	468	512	528	361
65°	260	290	358	410	429	257
75°	113	164	239	283	289	122
85°	22	47	58	64	66	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	832.9	832.9	832.9	832.9	832.9
2.5°	833.9	832.9	828.6	832.9	832.9
5°	830.7	830.7	827.5	830.7	830.7
7.5°	825.3	825.3	823.2	827.5	827.5
10°	818.9	818.9	817.8	823.2	823.2
12.5°	809.2	810.3	809.2	815.7	815.7
15°	798.5	799.6	800.6	808.1	808.1
17.5°	784.5	786.7	788.8	797.4	798.5
20°	771.6	772.7	777.0	786.7	787.7
22.5°	754.4	757.6	763.0	772.7	775.9
25°	735.1	739.4	745.8	758.7	760.9
27.5°	716.8	720.0	728.6	742.6	746.9
30°	694.2	699.6	710.4	724.3	729.7
32.5°	672.7	678.1	691.0	706.1	710.4
35°	645.9	653.4	668.4	685.6	691.0
37.5°	620.1	627.6	645.9	665.2	671.7
40°	593.2	601.8	621.2	643.7	652.3
42.5°	564.2	576.0	597.5	622.2	631.9
45°	535.2	545.9	572.8	600.7	611.5
47.5°	504.0	516.9	545.9	579.2	592.1
50°	470.7	486.8	520.1	556.7	570.6
52.5°	437.4	455.7	493.3	534.1	549.2
55°	405.1	422.3	467.5	511.5	527.7
57.5°	369.7	391.2	440.6	487.9	504.0
60°	333.1	356.8	413.7	463.2	480.4
62.5°	296.6	323.5	388.0	437.4	455.7
65°	260.1	290.2	357.9	410.5	428.8
67.5°	224.6	257.9	329.9	382.6	400.8
70°	183.8	225.7	299.8	351.4	369.7
72.5°	146.2	194.5	270.8	319.2	335.3
75°	112.8	164.4	238.6	282.6	289.1
77.5°	82.7	134.3	205.3	220.3	221.4
80°	55.9	107.5	156.9	154.8	156.9
82.5°	36.5	80.6	98.9	110.7	111.8
85°	21.5	47.3	58.0	64.5	65.6
87.5°	10.7	16.1	20.4	21.5	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)