

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: P309244

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CA125-W2A-U-5000K**

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: P309244
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: 24FCZ2-35HE-UNV-L82765-HRP-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5000K 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: 2504.0 lumens
Efficiency: N/A
Efficacy: 94.1 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

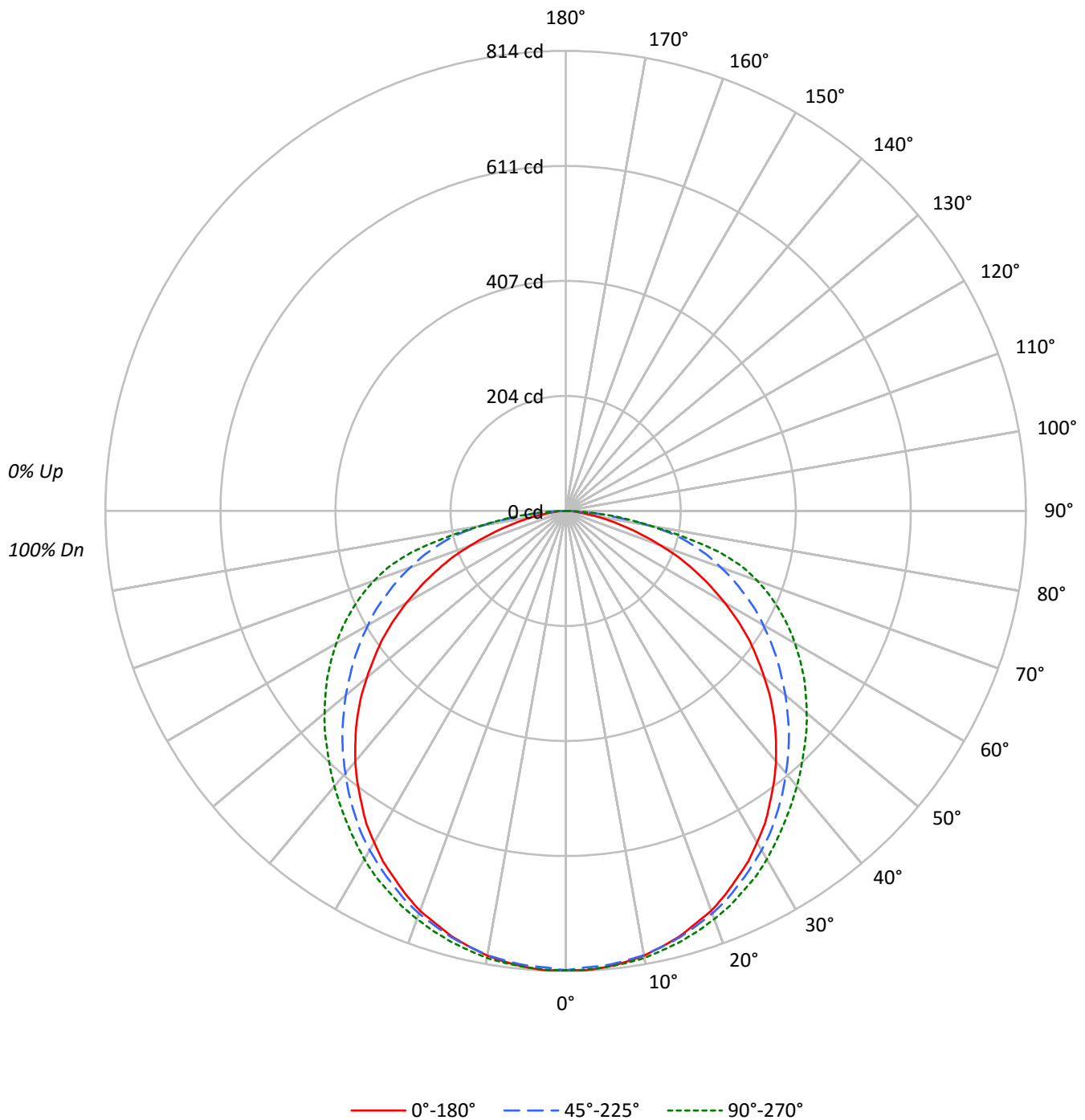
Input Watts (W): 26.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1093	1093	1093
5°	1094	1090	1094
10°	1091	1090	1097
15°	1085	1088	1098
20°	1078	1085	1100
25°	1064	1080	1102
30°	1052	1077	1106
35°	1035	1071	1107
40°	1016	1064	1118
45°	993	1063	1135
50°	961	1062	1165
55°	927	1070	1207
60°	875	1086	1261
65°	808	1111	1332
70°	705	1151	1419
75°	572	1210	1466
80°	422	1186	1186
85°	324	874	986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	3.1
10°-20°	221.0	8.8
20°-30°	336.5	13.4
30°-40°	408.5	16.3
40°-50°	431.6	17.2
50°-60°	407.3	16.3
60°-70°	338.6	13.5
70°-80°	222.8	8.9
80°-90°	60.7	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°	634.4	25.3
0°-40°	1043.0	41.7
0°-60°	1881.8	75.2
0°-90°	2504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	810	810	807	810	810	77
15°	779	780	781	788	788	220
25°	717	721	728	740	742	331
35°	630	637	652	669	674	394
45°	522	532	559	586	596	402
55°	395	412	456	499	515	352
65°	254	283	349	400	418	251
75°	110	160	233	276	282	119
85°	21	46	57	63	64	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	812.4	812.4	812.4	812.4	812.4
2.5°	813.5	812.4	808.2	812.4	812.4
5°	810.3	810.3	807.2	810.3	810.3
7.5°	805.1	805.1	803.0	807.2	807.2
10°	798.8	798.8	797.7	803.0	803.0
12.5°	789.4	790.4	789.4	795.7	795.7
15°	778.9	779.9	781.0	788.3	788.3
17.5°	765.3	767.3	769.4	777.8	778.9
20°	752.7	753.7	757.9	767.3	768.4
22.5°	735.9	739.0	744.3	753.7	756.9
25°	717.0	721.2	727.5	740.1	742.2
27.5°	699.2	702.4	710.7	724.4	728.6
30°	677.2	682.4	692.9	706.5	711.8
32.5°	656.2	661.5	674.1	688.7	692.9
35°	630.0	637.4	652.0	668.8	674.1
37.5°	604.9	612.2	630.0	648.9	655.2
40°	578.7	587.0	605.9	627.9	636.3
42.5°	550.4	561.9	582.8	607.0	616.4
45°	522.0	532.5	558.7	586.0	596.5
47.5°	491.6	504.2	532.5	565.0	577.6
50°	459.2	474.9	507.4	543.0	556.6
52.5°	426.7	444.5	481.2	521.0	535.7
55°	395.2	412.0	456.0	499.0	514.7
57.5°	360.6	381.6	429.8	475.9	491.6
60°	325.0	348.0	403.6	451.8	468.6
62.5°	289.3	315.5	378.4	426.7	444.5
65°	253.7	283.0	349.1	400.4	418.3
67.5°	219.1	251.6	321.8	373.2	391.0
70°	179.3	220.1	292.5	342.8	360.6
72.5°	142.6	189.7	264.2	311.3	327.1
75°	110.1	160.4	232.7	275.7	282.0
77.5°	80.7	131.0	200.2	214.9	215.9
80°	54.5	104.8	153.1	151.0	153.1
82.5°	35.6	78.6	96.4	108.0	109.0
85°	21.0	46.1	56.6	62.9	63.9
87.5°	10.5	15.7	19.9	21.0	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)