

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: P309289

Luminaire Tested: **24FCZ2-35-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: P309289
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-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 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: 2531.0 lumens
Efficiency: N/A
Efficacy: 88.2 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

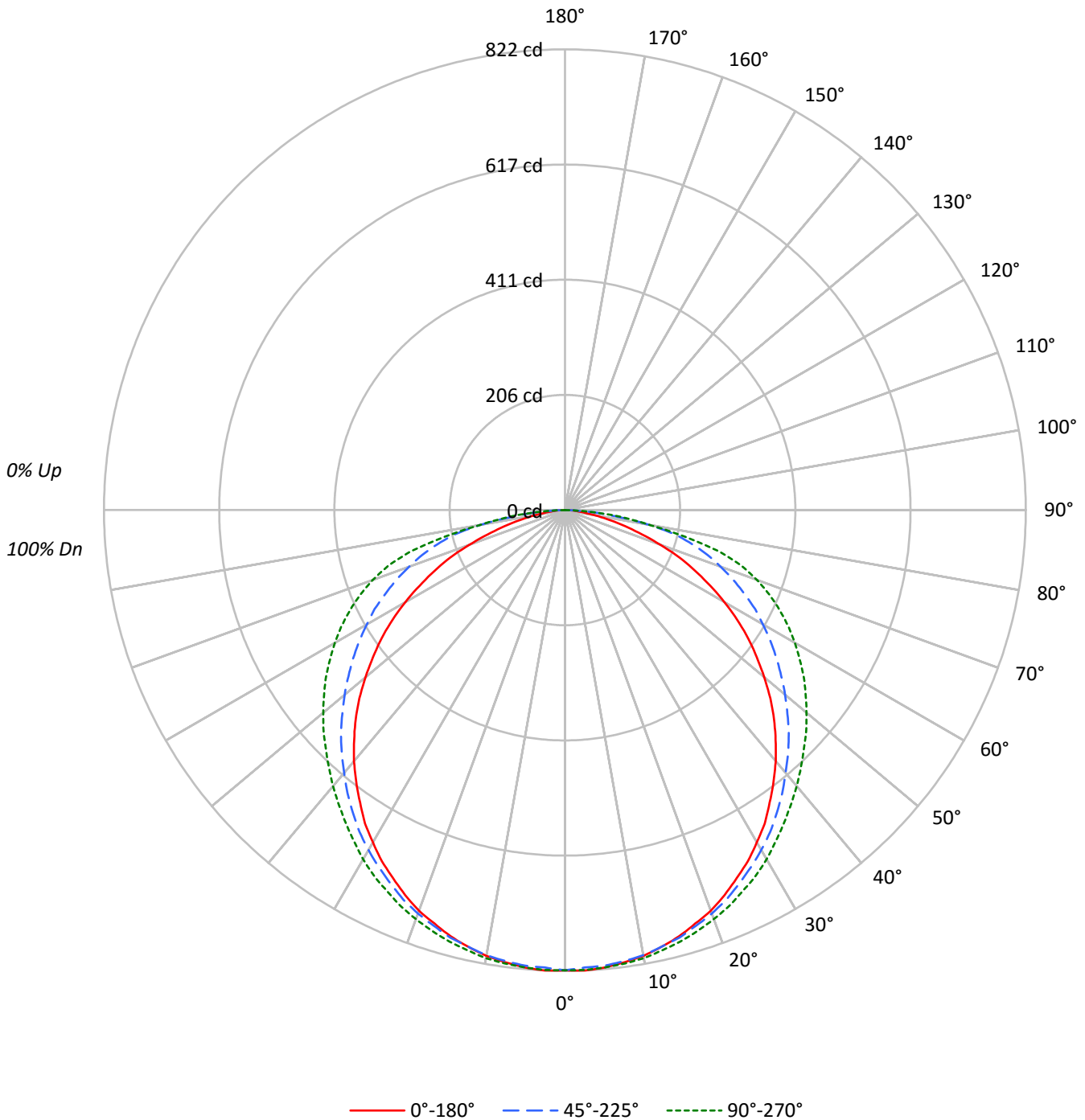
Input Watts (W): 28.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1105	1105	1105
5°	1106	1102	1106
10°	1103	1102	1109
15°	1097	1100	1110
20°	1089	1097	1112
25°	1076	1092	1114
30°	1063	1088	1118
35°	1046	1083	1119
40°	1027	1076	1130
45°	1004	1075	1147
50°	971	1073	1178
55°	937	1081	1221
60°	884	1098	1274
65°	816	1123	1346
70°	713	1163	1434
75°	579	1223	1482
80°	427	1199	1199
85°	327	883	997



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	3.1
10°-20°	223.4	8.8
20°-30°	340.1	13.4
30°-40°	412.9	16.3
40°-50°	436.3	17.2
50°-60°	411.7	16.3
60°-70°	342.3	13.5
70°-80°	225.2	8.9
80°-90°	61.4	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°	641.3	25.3
0°-40°	1054.2	41.7
0°-60°	1902.1	75.2
0°-90°	2531.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2531.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	821	821	821	821	821	
5°	819	819	816	819	819	78
15°	787	788	789	797	797	222
25°	725	729	735	748	750	334
35°	637	644	659	676	681	399
45°	528	538	565	592	603	406
55°	400	416	461	504	520	356
65°	256	286	353	405	423	253
75°	111	162	235	279	285	120
85°	21	47	57	64	65	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	821.2	821.2	821.2	821.2	821.2
2.5°	822.2	821.2	816.9	821.2	821.2
5°	819.1	819.1	815.9	819.1	819.1
7.5°	813.8	813.8	811.6	815.9	815.9
10°	807.4	807.4	806.4	811.6	811.6
12.5°	797.9	798.9	797.9	804.2	804.2
15°	787.3	788.3	789.4	796.8	796.8
17.5°	773.5	775.6	777.7	786.2	787.3
20°	760.8	761.8	766.1	775.6	776.7
22.5°	743.8	747.0	752.3	761.8	765.0
25°	724.8	729.0	735.4	748.1	750.2
27.5°	706.7	709.9	718.4	732.2	736.4
30°	684.5	689.8	700.4	714.2	719.5
32.5°	663.3	668.6	681.3	696.2	700.4
35°	636.8	644.2	659.1	676.0	681.3
37.5°	611.4	618.8	636.8	655.9	662.2
40°	584.9	593.4	612.4	634.7	643.2
42.5°	556.3	567.9	589.1	613.5	623.0
45°	527.7	538.3	564.8	592.3	602.9
47.5°	496.9	509.7	538.3	571.1	583.8
50°	464.1	480.0	512.8	548.9	562.6
52.5°	431.3	449.3	486.4	526.6	541.5
55°	399.5	416.4	460.9	504.4	520.3
57.5°	364.5	385.7	434.4	481.1	496.9
60°	328.5	351.8	407.9	456.7	473.6
62.5°	292.4	318.9	382.5	431.3	449.3
65°	256.4	286.1	352.8	404.8	422.8
67.5°	221.5	254.3	325.3	377.2	395.2
70°	181.2	222.5	295.6	346.5	364.5
72.5°	144.1	191.8	267.0	314.7	330.6
75°	111.3	162.1	235.2	278.7	285.0
77.5°	81.6	132.4	202.4	217.2	218.3
80°	55.1	106.0	154.7	152.6	154.7
82.5°	36.0	79.5	97.5	109.1	110.2
85°	21.2	46.6	57.2	63.6	64.6
87.5°	10.6	15.9	20.1	21.2	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)