

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: P309300

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CP125-W2A-U-5700K**

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: P309300
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (168) 5700K 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: 2513.0 lumens
Efficiency: N/A
Efficacy: 87.3 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

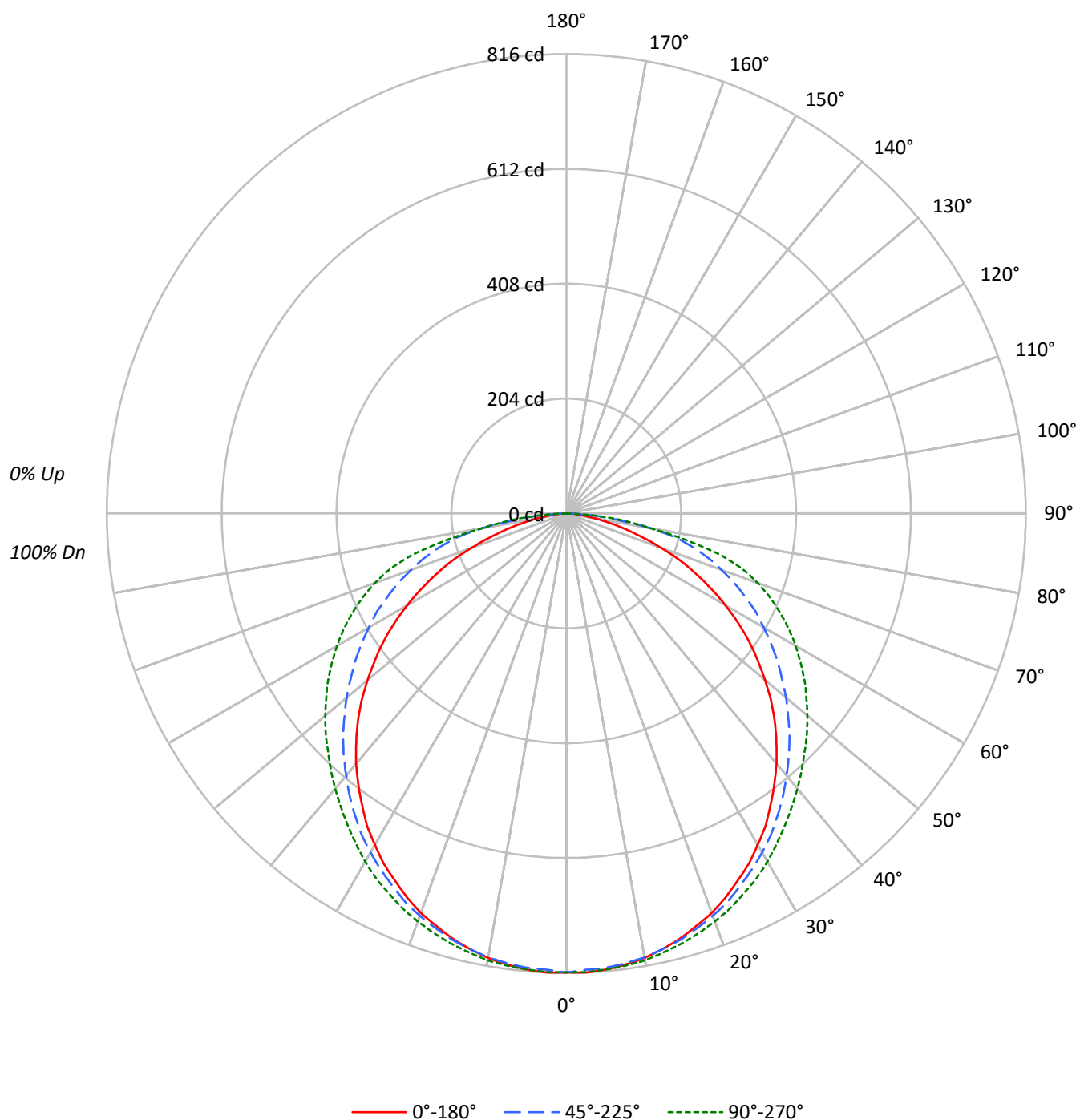
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1097	1097	1097
5°	1098	1094	1098
10°	1095	1094	1101
15°	1089	1092	1102
20°	1082	1089	1104
25°	1068	1084	1106
30°	1056	1080	1110
35°	1039	1075	1111
40°	1020	1068	1122
45°	997	1067	1139
50°	965	1066	1169
55°	930	1073	1212
60°	878	1090	1266
65°	811	1115	1337
70°	708	1155	1424
75°	574	1214	1471
80°	424	1190	1190
85°	324	877	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	3.1
10°-20°	221.8	8.8
20°-30°	337.7	13.4
30°-40°	410.0	16.3
40°-50°	433.2	17.2
50°-60°	408.7	16.3
60°-70°	339.9	13.5
70°-80°	223.6	8.9
80°-90°	60.9	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°	636.7	25.3
0°-40°	1046.7	41.7
0°-60°	1888.6	75.2
0°-90°	2513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	813	813	810	813	813	77
15°	782	783	784	791	791	220
25°	720	724	730	743	745	332
35°	632	640	654	671	676	396
45°	524	534	561	588	599	403
55°	397	414	458	501	517	353
65°	255	284	350	402	420	252
75°	110	161	234	277	283	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°	815.3	815.3	815.3	815.3	815.3
2.5°	816.4	815.3	811.1	815.3	815.3
5°	813.2	813.2	810.1	813.2	813.2
7.5°	808.0	808.0	805.9	810.1	810.1
10°	801.7	801.7	800.6	805.9	805.9
12.5°	792.2	793.3	792.2	798.5	798.5
15°	781.7	782.7	783.8	791.1	791.1
17.5°	768.0	770.1	772.2	780.6	781.7
20°	755.4	756.4	760.6	770.1	771.2
22.5°	738.5	741.7	747.0	756.4	759.6
25°	719.6	723.8	730.1	742.8	744.9
27.5°	701.7	704.9	713.3	727.0	731.2
30°	679.6	684.9	695.4	709.1	714.3
32.5°	658.6	663.8	676.5	691.2	695.4
35°	632.3	639.7	654.4	671.2	676.5
37.5°	607.0	614.4	632.3	651.2	657.5
40°	580.7	589.2	608.1	630.2	638.6
42.5°	552.3	563.9	584.9	609.1	618.6
45°	523.9	534.4	560.7	588.1	598.6
47.5°	493.4	506.0	534.4	567.1	579.7
50°	460.8	476.6	509.2	545.0	558.6
52.5°	428.2	446.1	482.9	522.9	537.6
55°	396.6	413.5	457.6	500.8	516.6
57.5°	361.9	382.9	431.3	477.6	493.4
60°	326.1	349.3	405.0	453.4	470.3
62.5°	290.4	316.7	379.8	428.2	446.1
65°	254.6	284.1	350.3	401.9	419.8
67.5°	219.9	252.5	323.0	374.5	392.4
70°	179.9	220.9	293.5	344.0	361.9
72.5°	143.1	190.4	265.1	312.5	328.2
75°	110.5	161.0	233.6	276.7	283.0
77.5°	81.0	131.5	200.9	215.7	216.7
80°	54.7	105.2	153.6	151.5	153.6
82.5°	35.8	78.9	96.8	108.4	109.4
85°	21.0	46.3	56.8	63.1	64.2
87.5°	10.5	15.8	20.0	21.0	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)