

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: P309287

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CA125-W2A-U-4000K**

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: P309287
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-4000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2454.0 lumens
Efficiency: N/A
Efficacy: 86.7 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

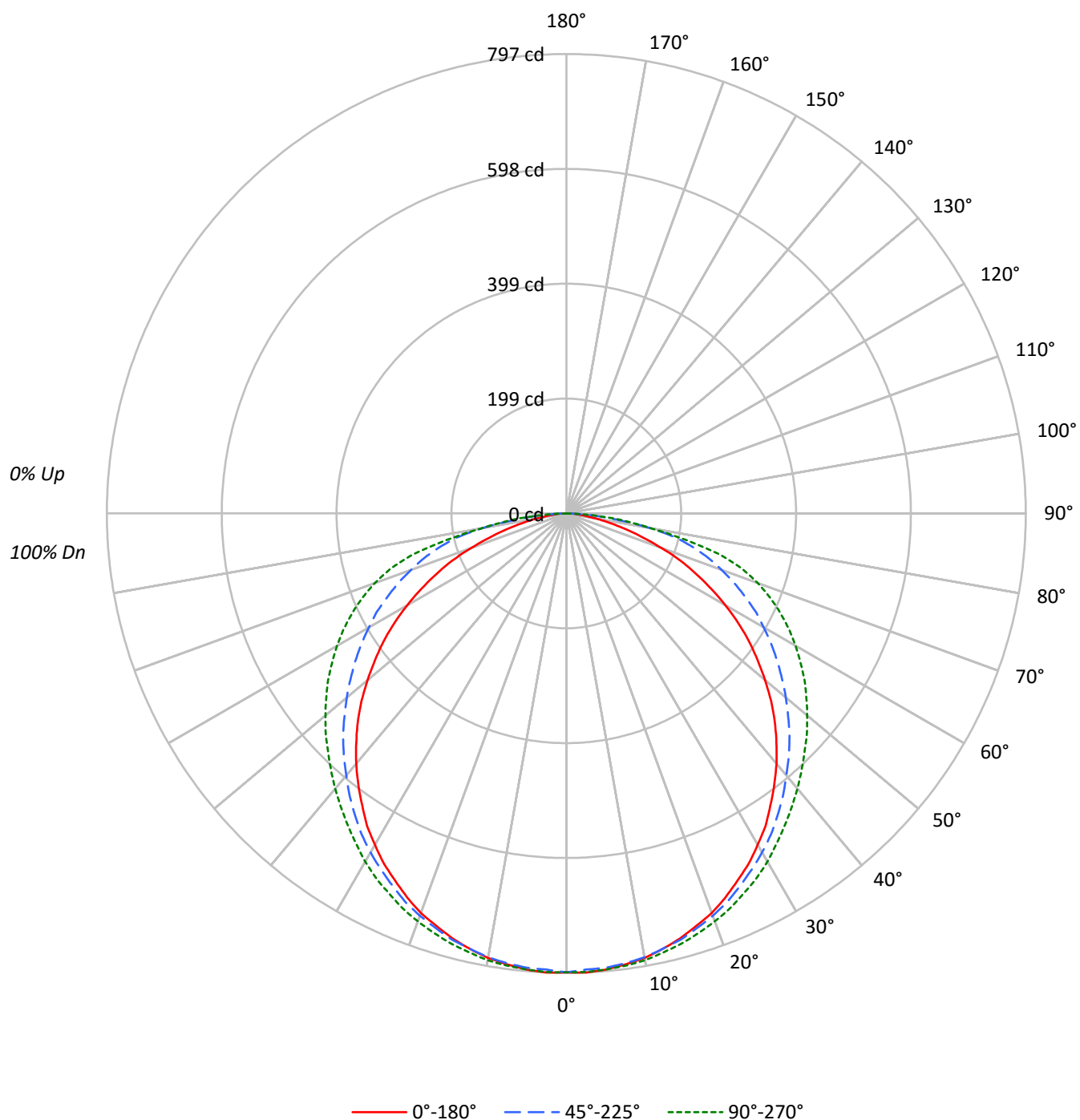
Input Watts (W): 28.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1071	1071	1071
5°	1073	1068	1073
10°	1069	1068	1075
15°	1063	1066	1076
20°	1056	1064	1078
25°	1043	1059	1080
30°	1031	1055	1084
35°	1014	1050	1085
40°	996	1043	1095
45°	973	1042	1112
50°	942	1041	1142
55°	909	1048	1183
60°	857	1064	1236
65°	791	1089	1305
70°	691	1127	1390
75°	561	1186	1437
80°	414	1162	1162
85°	316	857	968



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	3.1
10°-20°	216.6	8.8
20°-30°	329.7	13.4
30°-40°	400.4	16.3
40°-50°	423.0	17.2
50°-60°	399.1	16.3
60°-70°	331.9	13.5
70°-80°	218.3	8.9
80°-90°	59.5	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°	621.8	25.3
0°-40°	1022.1	41.7
0°-60°	1844.3	75.2
0°-90°	2454.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2454.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	794	794	791	794	794	75
15°	763	764	765	773	773	215
25°	703	707	713	725	727	324
35°	617	625	639	656	661	387
45°	512	522	548	574	585	394
55°	387	404	447	489	504	345
65°	249	277	342	392	410	246
75°	108	157	228	270	276	116
85°	20	45	56	62	63	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	796.2	796.2	796.2	796.2	796.2
2.5°	797.2	796.2	792.1	796.2	796.2
5°	794.1	794.1	791.1	794.1	794.1
7.5°	789.0	789.0	787.0	791.1	791.1
10°	782.8	782.8	781.8	787.0	787.0
12.5°	773.6	774.6	773.6	779.8	779.8
15°	763.3	764.4	765.4	772.6	772.6
17.5°	750.0	752.0	754.1	762.3	763.3
20°	737.6	738.7	742.8	752.0	753.1
22.5°	721.2	724.3	729.4	738.7	741.8
25°	702.7	706.8	713.0	725.3	727.4
27.5°	685.2	688.3	696.5	709.9	714.0
30°	663.7	668.8	679.1	692.4	697.6
32.5°	643.1	648.3	660.6	675.0	679.1
35°	617.4	624.6	639.0	655.5	660.6
37.5°	592.8	600.0	617.4	635.9	642.1
40°	567.1	575.3	593.8	615.4	623.6
42.5°	539.4	550.7	571.2	594.8	604.1
45°	511.6	521.9	547.6	574.3	584.6
47.5°	481.8	494.2	521.9	553.7	566.1
50°	450.0	465.4	497.2	532.2	545.5
52.5°	418.1	435.6	471.6	510.6	525.0
55°	387.3	403.8	446.9	489.0	504.4
57.5°	353.4	374.0	421.2	466.4	481.8
60°	318.5	341.1	395.5	442.8	459.2
62.5°	283.6	309.2	370.9	418.1	435.6
65°	248.6	277.4	342.1	392.5	409.9
67.5°	214.7	246.6	315.4	365.7	383.2
70°	175.7	215.7	286.6	335.9	353.4
72.5°	139.7	186.0	258.9	305.1	320.5
75°	107.9	157.2	228.1	270.2	276.4
77.5°	79.1	128.4	196.2	210.6	211.6
80°	53.4	102.7	150.0	147.9	150.0
82.5°	34.9	77.1	94.5	105.8	106.8
85°	20.5	45.2	55.5	61.6	62.7
87.5°	10.3	15.4	19.5	20.5	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)