

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: P309401

Luminaire Tested: **24FCZ2-40-UNV-L82765-HRP-CP250-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: P309401
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-CP250-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB 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: 2391.0 lumens
Efficiency: N/A
Efficacy: 73.1 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

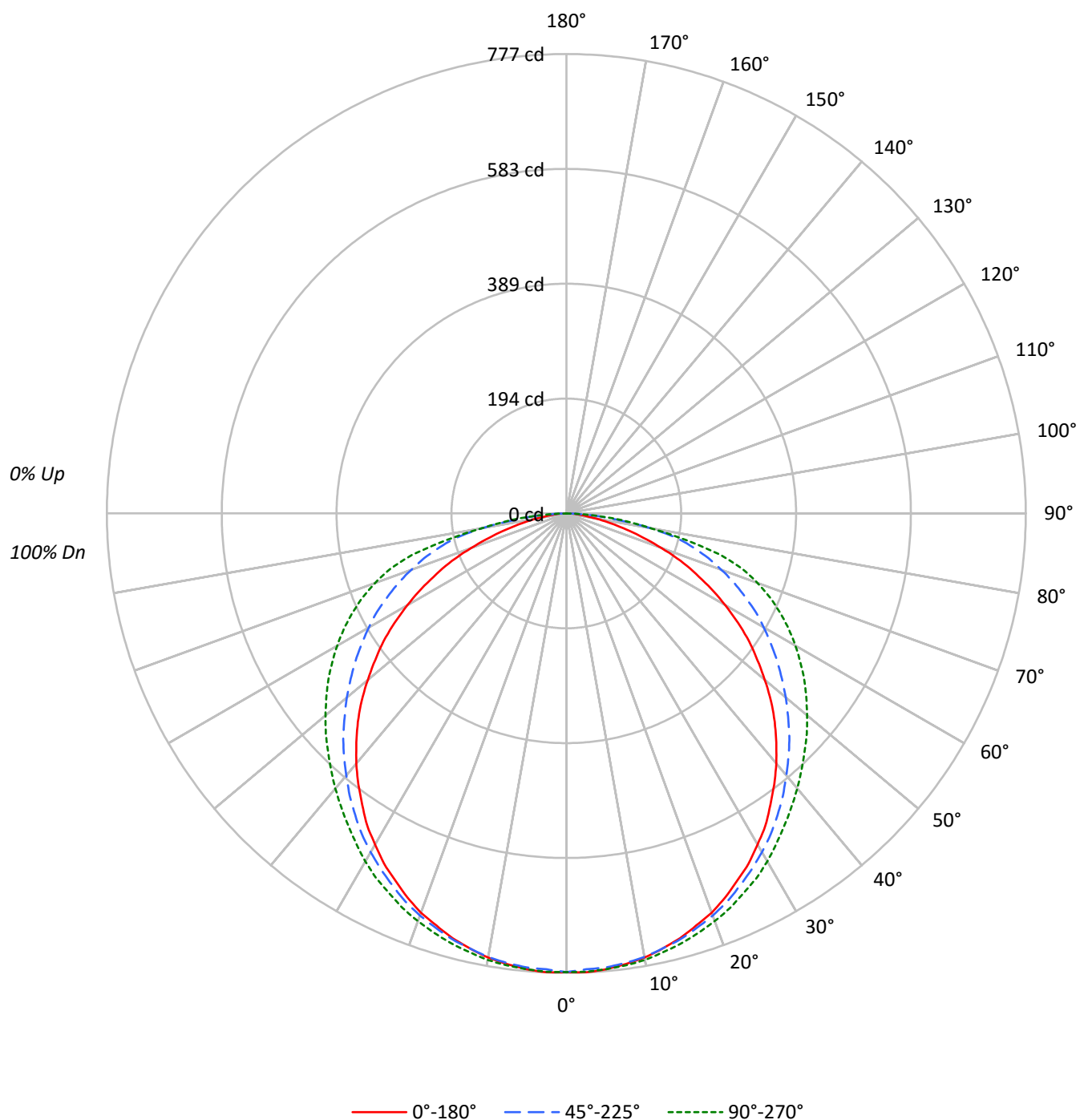
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1044	1044	1044
5°	1045	1041	1045
10°	1042	1041	1048
15°	1036	1039	1048
20°	1029	1036	1051
25°	1016	1031	1052
30°	1005	1028	1056
35°	988	1023	1057
40°	970	1016	1067
45°	949	1015	1084
50°	918	1014	1113
55°	885	1021	1153
60°	835	1037	1204
65°	771	1061	1272
70°	673	1099	1354
75°	546	1155	1400
80°	404	1132	1132
85°	309	835	943



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.1
10°-20°	211.0	8.8
20°-30°	321.3	13.4
30°-40°	390.1	16.3
40°-50°	412.1	17.2
50°-60°	388.9	16.3
60°-70°	323.4	13.5
70°-80°	212.7	8.9
80°-90°	58.0	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°	605.8	25.3
0°-40°	995.9	41.7
0°-60°	1796.9	75.2
0°-90°	2391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	774	774	771	774	774	73
15°	744	745	746	753	753	210
25°	685	689	695	707	709	316
35°	602	609	623	639	644	377
45°	498	508	534	560	570	384
55°	377	393	435	476	492	336
65°	242	270	333	382	399	239
75°	105	153	222	263	269	113
85°	20	44	54	60	61	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	775.8	775.8	775.8	775.8	775.8
2.5°	776.8	775.8	771.8	775.8	775.8
5°	773.8	773.8	770.8	773.8	773.8
7.5°	768.8	768.8	766.8	770.8	770.8
10°	762.7	762.7	761.7	766.8	766.8
12.5°	753.7	754.7	753.7	759.7	759.7
15°	743.7	744.7	745.7	752.7	752.7
17.5°	730.7	732.7	734.7	742.7	743.7
20°	718.7	719.7	723.7	732.7	733.7
22.5°	702.7	705.7	710.7	719.7	722.7
25°	684.7	688.7	694.7	706.7	708.7
27.5°	667.7	670.7	678.7	691.7	695.7
30°	646.6	651.6	661.6	674.7	679.7
32.5°	626.6	631.6	643.6	657.6	661.6
35°	601.6	608.6	622.6	638.6	643.6
37.5°	577.6	584.6	601.6	619.6	625.6
40°	552.5	560.6	578.6	599.6	607.6
42.5°	525.5	536.5	556.5	579.6	588.6
45°	498.5	508.5	533.5	559.5	569.6
47.5°	469.5	481.5	508.5	539.5	551.5
50°	438.4	453.4	484.5	518.5	531.5
52.5°	407.4	424.4	459.5	497.5	511.5
55°	377.4	393.4	435.4	476.5	491.5
57.5°	344.3	364.4	410.4	454.4	469.5
60°	310.3	332.3	385.4	431.4	447.4
62.5°	276.3	301.3	361.4	407.4	424.4
65°	242.2	270.3	333.3	382.4	399.4
67.5°	209.2	240.2	307.3	356.3	373.4
70°	171.2	210.2	279.3	327.3	344.3
72.5°	136.1	181.2	252.2	297.3	312.3
75°	105.1	153.2	222.2	263.3	269.3
77.5°	77.1	125.1	191.2	205.2	206.2
80°	52.1	100.1	146.1	144.1	146.1
82.5°	34.0	75.1	92.1	103.1	104.1
85°	20.0	44.0	54.1	60.1	61.1
87.5°	10.0	15.0	19.0	20.0	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)