

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: P310665

Luminaire Tested: **24FCZ2-35-UNV-L82765-CP250-W2A-U-4500K**

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: P310665
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CP250-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4500K 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: 3066.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

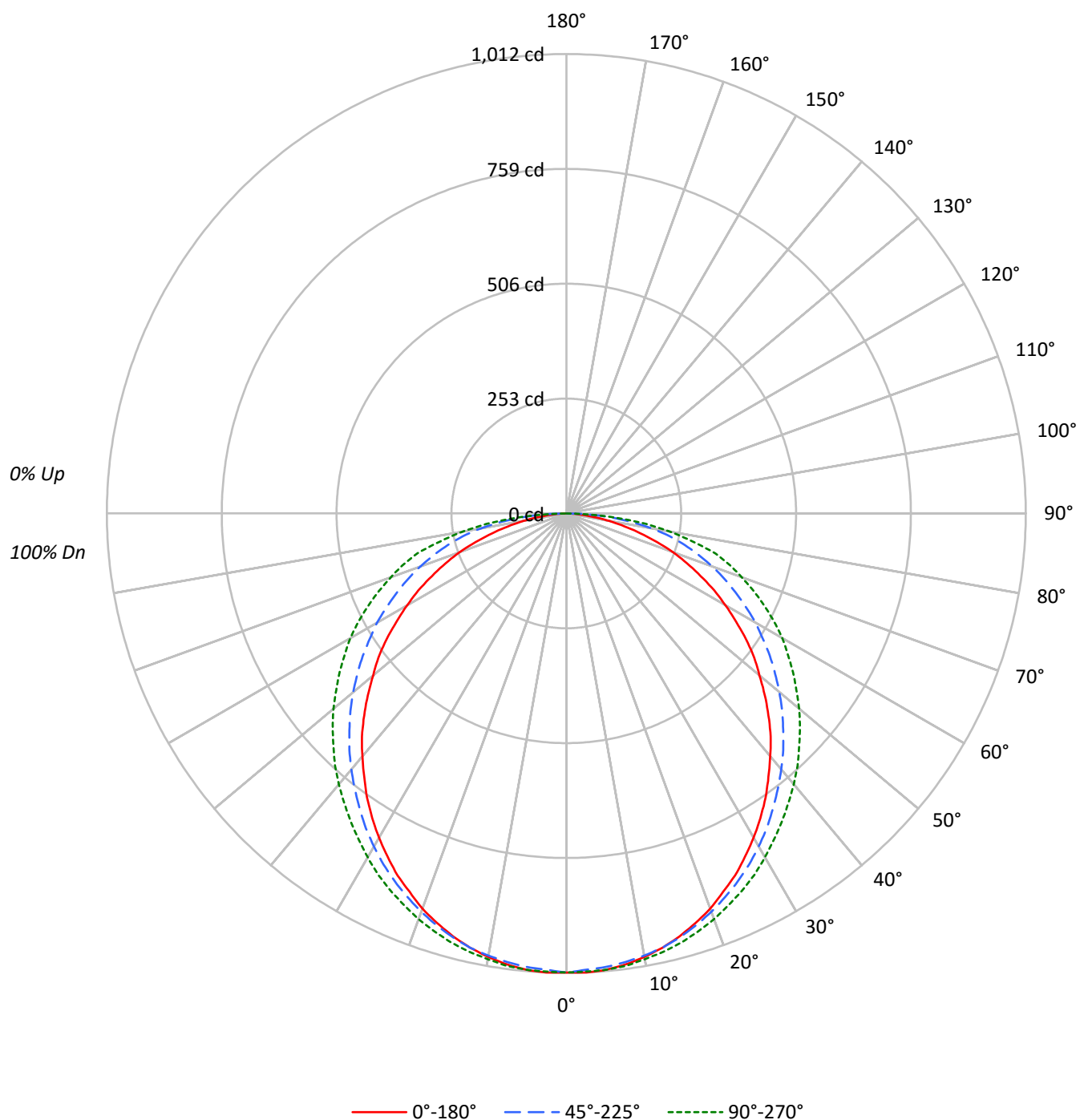
Input Watts (W): 28.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	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	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1360	1360	1360
5°	1363	1355	1363
10°	1355	1351	1362
15°	1343	1346	1363
20°	1327	1337	1362
25°	1306	1328	1361
30°	1282	1317	1359
35°	1257	1303	1360
40°	1227	1294	1369
45°	1198	1285	1380
50°	1163	1282	1401
55°	1133	1284	1429
60°	1090	1295	1478
65°	1039	1309	1532
70°	984	1349	1617
75°	878	1407	1766
80°	748	1490	1805
85°	534	1476	1727



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	3.1
10°-20°	273.6	8.9
20°-30°	413.3	13.5
30°-40°	498.1	16.2
40°-50°	522.9	17.1
50°-60°	489.2	16.0
60°-70°	404.0	13.2
70°-80°	275.3	9.0
80°-90°	93.9	3.1
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°	782.6	25.5
0°-40°	1280.7	41.8
0°-60°	2292.8	74.8
0°-90°	3066.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3066.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1009	1008	1003	1009	1009	96
15°	964	965	966	977	979	272
25°	880	884	894	912	916	405
35°	765	773	794	820	828	478
45°	630	643	675	712	725	486
55°	483	502	547	592	609	431
65°	326	354	411	463	481	324
75°	169	208	271	321	340	180
85°	35	68	96	108	112	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1011.1	1011.1	1011.1	1011.1	1011.1
2.5°	1012.2	1011.1	1006.1	1011.1	1010.1
5°	1009.1	1008.1	1003.0	1009.1	1009.1
7.5°	1002.0	1002.0	996.9	1004.0	1005.0
10°	991.8	991.8	988.8	996.9	996.9
12.5°	979.6	979.6	979.6	987.7	988.8
15°	964.3	965.4	966.4	976.6	978.6
17.5°	946.0	948.1	951.1	963.3	965.4
20°	926.7	928.7	933.8	948.1	951.1
22.5°	902.3	907.4	914.5	930.8	933.8
25°	879.9	884.0	894.2	911.5	916.5
27.5°	852.5	858.6	871.8	890.1	897.2
30°	825.0	831.1	847.4	868.7	874.8
32.5°	795.5	804.6	821.9	844.3	851.4
35°	765.0	773.1	793.5	819.9	828.0
37.5°	731.4	742.6	765.0	793.5	803.6
40°	698.8	711.1	736.5	767.0	779.2
42.5°	666.3	678.5	707.0	741.6	753.8
45°	629.7	642.9	675.4	712.1	725.3
47.5°	593.1	609.3	644.9	683.6	697.8
50°	555.4	573.7	612.4	653.1	669.3
52.5°	521.8	539.1	579.8	623.6	638.8
55°	483.2	502.5	547.3	592.0	609.3
57.5°	443.5	464.9	512.7	561.5	578.8
60°	404.9	428.3	481.2	530.0	549.3
62.5°	367.2	390.6	445.6	496.4	515.7
65°	326.5	354.0	411.0	462.8	481.2
67.5°	287.9	317.4	377.4	428.3	446.6
70°	250.2	278.7	342.8	392.7	411.0
72.5°	209.6	242.1	306.2	358.1	377.4
75°	168.9	207.5	270.6	321.4	339.8
77.5°	131.2	170.9	234.0	275.7	284.8
80°	96.6	137.3	192.3	221.8	232.9
82.5°	62.1	102.7	146.5	167.8	177.0
85°	34.6	68.2	95.6	107.8	111.9
87.5°	14.2	29.5	38.7	43.7	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)