

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: P309469

Luminaire Tested: **24FCZ2-45-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: P309469
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: 24FCZ2-45-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: 3225.0 lumens
Efficiency: N/A
Efficacy: 83.8 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

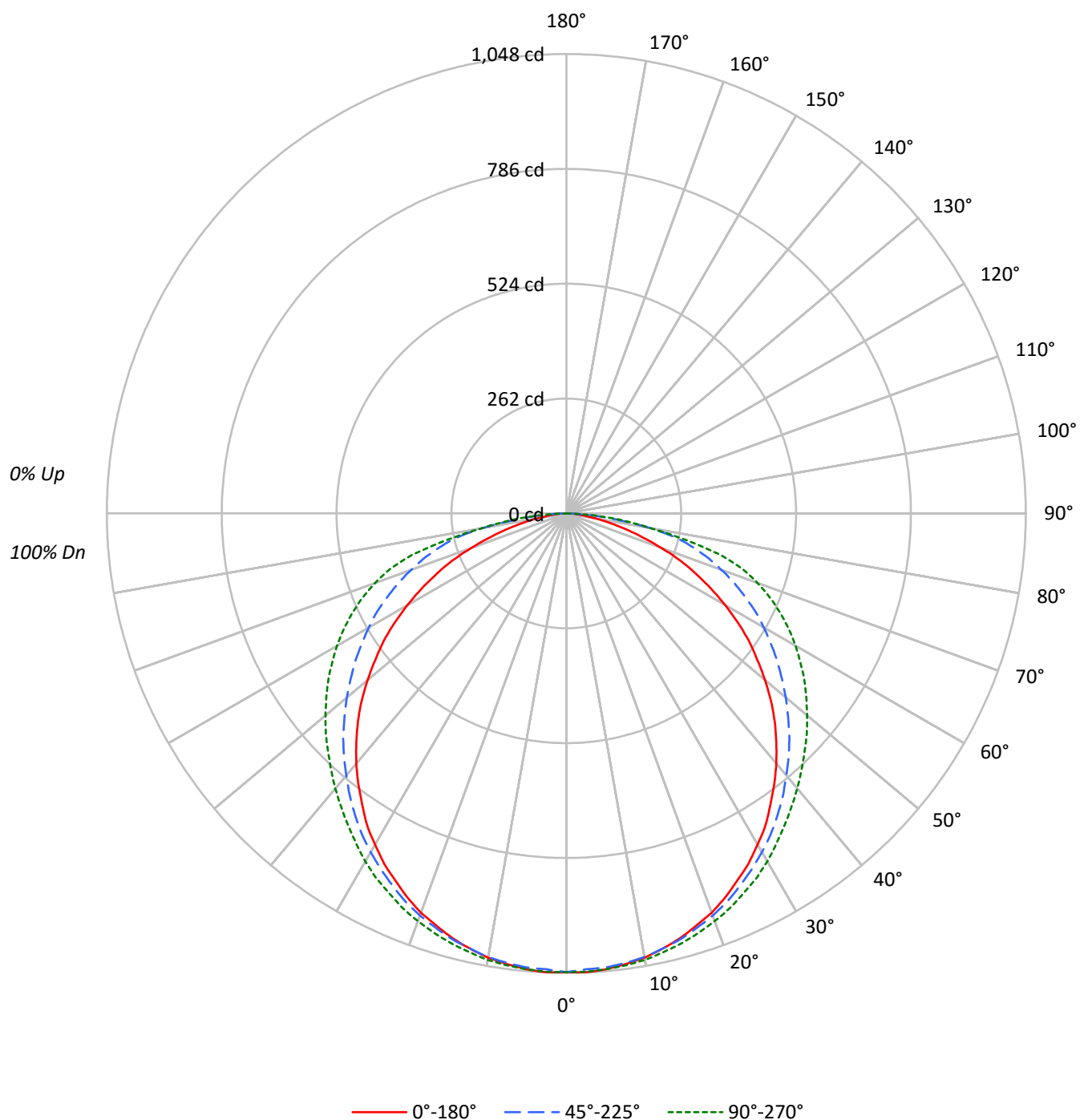
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1408	1408	1408
5°	1410	1404	1410
10°	1406	1404	1413
15°	1397	1401	1414
20°	1388	1398	1417
25°	1371	1391	1419
30°	1355	1386	1424
35°	1333	1379	1426
40°	1309	1371	1439
45°	1279	1369	1462
50°	1238	1368	1501
55°	1194	1378	1555
60°	1126	1399	1624
65°	1040	1431	1715
70°	908	1482	1827
75°	737	1558	1888
80°	544	1527	1527
85°	417	1125	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	3.1
10°-20°	284.6	8.8
20°-30°	433.3	13.4
30°-40°	526.2	16.3
40°-50°	555.9	17.2
50°-60°	524.5	16.3
60°-70°	436.1	13.5
70°-80°	286.9	8.9
80°-90°	78.2	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°	817.1	25.3
0°-40°	1343.3	41.7
0°-60°	2423.7	75.2
0°-90°	3225.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3225.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1044	1044	1040	1044	1044	99
15°	1003	1004	1006	1015	1015	283
25°	924	929	937	953	956	426
35°	811	821	840	861	868	508
45°	672	686	720	755	768	518
55°	509	531	587	643	663	453
65°	327	364	450	516	539	323
75°	142	207	300	355	363	153
85°	27	59	73	81	82	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046.4	1046.4	1046.4	1046.4	1046.4
2.5°	1047.7	1046.4	1041.0	1046.4	1046.4
5°	1043.7	1043.7	1039.6	1043.7	1043.7
7.5°	1036.9	1036.9	1034.2	1039.6	1039.6
10°	1028.8	1028.8	1027.5	1034.2	1034.2
12.5°	1016.7	1018.0	1016.7	1024.8	1024.8
15°	1003.1	1004.5	1005.8	1015.3	1015.3
17.5°	985.6	988.3	991.0	1001.8	1003.1
20°	969.4	970.7	976.1	988.3	989.6
22.5°	947.8	951.8	958.6	970.7	974.8
25°	923.5	928.9	937.0	953.2	955.9
27.5°	900.5	904.6	915.4	932.9	938.3
30°	872.2	878.9	892.4	910.0	916.7
32.5°	845.2	851.9	868.1	887.0	892.4
35°	811.4	820.9	839.8	861.4	868.1
37.5°	779.0	788.5	811.4	835.7	843.8
40°	745.3	756.1	780.4	808.7	819.5
42.5°	708.8	723.7	750.7	781.7	793.9
45°	672.4	685.9	719.6	754.7	768.2
47.5°	633.2	649.4	685.9	727.7	743.9
50°	591.4	611.6	653.5	699.4	716.9
52.5°	549.5	572.5	619.7	671.0	689.9
55°	509.0	530.6	587.3	642.7	662.9
57.5°	464.4	491.4	553.6	613.0	633.2
60°	418.5	448.2	519.8	581.9	603.5
62.5°	372.6	406.4	487.4	549.5	572.5
65°	326.7	364.5	449.6	515.8	538.7
67.5°	282.2	324.0	414.5	480.6	503.6
70°	230.9	283.5	376.7	441.5	464.4
72.5°	183.6	244.4	340.2	401.0	421.2
75°	141.8	206.6	299.7	355.1	363.2
77.5°	104.0	168.8	257.9	276.8	278.1
80°	70.2	135.0	197.1	194.4	197.1
82.5°	45.9	101.3	124.2	139.1	140.4
85°	27.0	59.4	72.9	81.0	82.4
87.5°	13.5	20.3	25.7	27.0	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)