

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: P309510

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-HRP-CA125-W2A-U-3000K**

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: P309510
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: 24FCZ2-50HE-UNV-L82765-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3000K 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: 3279.0 lumens
Efficiency: N/A
Efficacy: 86.1 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

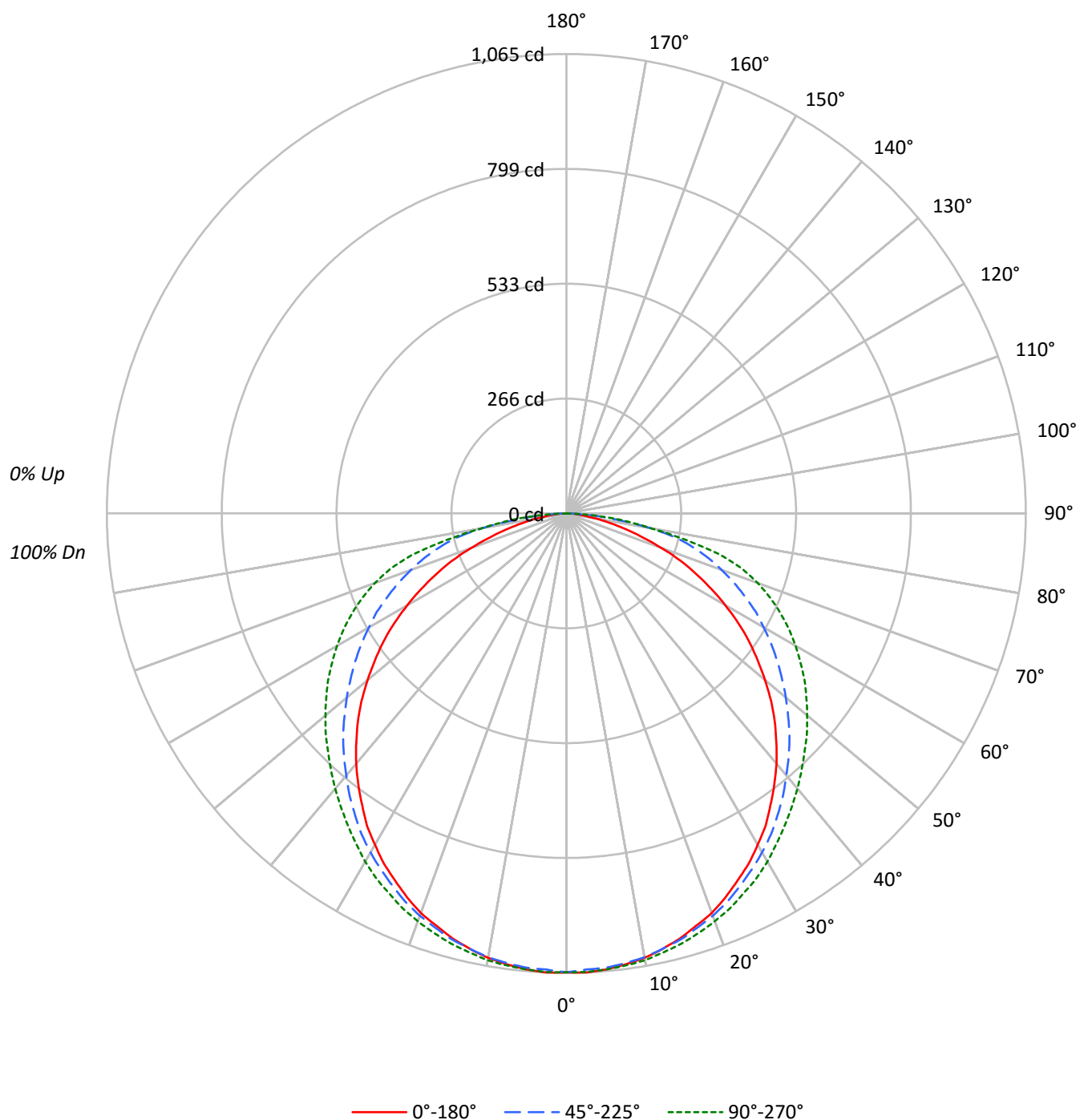
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1431	1431	1431
5°	1433	1428	1433
10°	1429	1427	1437
15°	1421	1425	1438
20°	1411	1421	1441
25°	1394	1414	1443
30°	1378	1410	1448
35°	1355	1402	1450
40°	1331	1394	1464
45°	1301	1392	1486
50°	1259	1391	1526
55°	1214	1401	1581
60°	1145	1422	1651
65°	1058	1455	1744
70°	923	1507	1858
75°	749	1584	1920
80°	553	1553	1553
85°	425	1144	1292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	3.1
10°-20°	289.4	8.8
20°-30°	440.6	13.4
30°-40°	535.0	16.3
40°-50°	565.2	17.2
50°-60°	533.3	16.3
60°-70°	443.4	13.5
70°-80°	291.7	8.9
80°-90°	79.5	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°	830.8	25.3
0°-40°	1365.8	41.7
0°-60°	2464.3	75.2
0°-90°	3279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3279.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1061	1061	1057	1061	1061	101
15°	1020	1021	1023	1032	1032	288
25°	939	944	953	969	972	433
35°	825	835	854	876	883	516
45°	684	697	732	767	781	526
55°	518	540	597	653	674	461
65°	332	371	457	524	548	328
75°	144	210	305	361	369	155
85°	28	60	74	82	84	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1063.9	1063.9	1063.9	1063.9	1063.9
2.5°	1065.2	1063.9	1058.4	1063.9	1063.9
5°	1061.1	1061.1	1057.0	1061.1	1061.1
7.5°	1054.3	1054.3	1051.5	1057.0	1057.0
10°	1046.0	1046.0	1044.7	1051.5	1051.5
12.5°	1033.7	1035.0	1033.7	1041.9	1041.9
15°	1019.9	1021.3	1022.7	1032.3	1032.3
17.5°	1002.1	1004.8	1007.6	1018.6	1019.9
20°	985.6	987.0	992.5	1004.8	1006.2
22.5°	963.7	967.8	974.6	987.0	991.1
25°	939.0	944.4	952.7	969.2	971.9
27.5°	915.6	919.7	930.7	948.6	954.1
30°	886.8	893.7	907.4	925.2	932.1
32.5°	859.3	866.2	882.7	901.9	907.4
35°	825.0	834.6	853.8	875.8	882.7
37.5°	792.1	801.7	825.0	849.7	858.0
40°	757.8	768.7	793.4	822.3	833.3
42.5°	720.7	735.8	763.2	794.8	807.2
45°	683.6	697.4	731.7	767.4	781.1
47.5°	643.8	660.3	697.4	739.9	756.4
50°	601.3	621.9	664.4	711.1	728.9
52.5°	558.7	582.0	630.1	682.3	701.5
55°	517.5	539.5	597.1	653.4	674.0
57.5°	472.2	499.7	562.8	623.2	643.8
60°	425.5	455.7	528.5	591.7	613.6
62.5°	378.9	413.2	495.6	558.7	582.0
65°	332.2	370.6	457.1	524.4	547.7
67.5°	286.9	329.5	421.4	488.7	512.0
70°	234.7	288.3	383.0	448.9	472.2
72.5°	186.7	248.5	345.9	407.7	428.3
75°	144.1	210.0	304.7	361.0	369.3
77.5°	105.7	171.6	262.2	281.4	282.8
80°	71.4	137.3	200.4	197.7	200.4
82.5°	46.7	103.0	126.3	141.4	142.8
85°	27.5	60.4	74.1	82.4	83.7
87.5°	13.7	20.6	26.1	27.5	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)