

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: P309526

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P309526
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-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (336) 6500K 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: 3560.0 lumens
Efficiency: N/A
Efficacy: 88.8 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

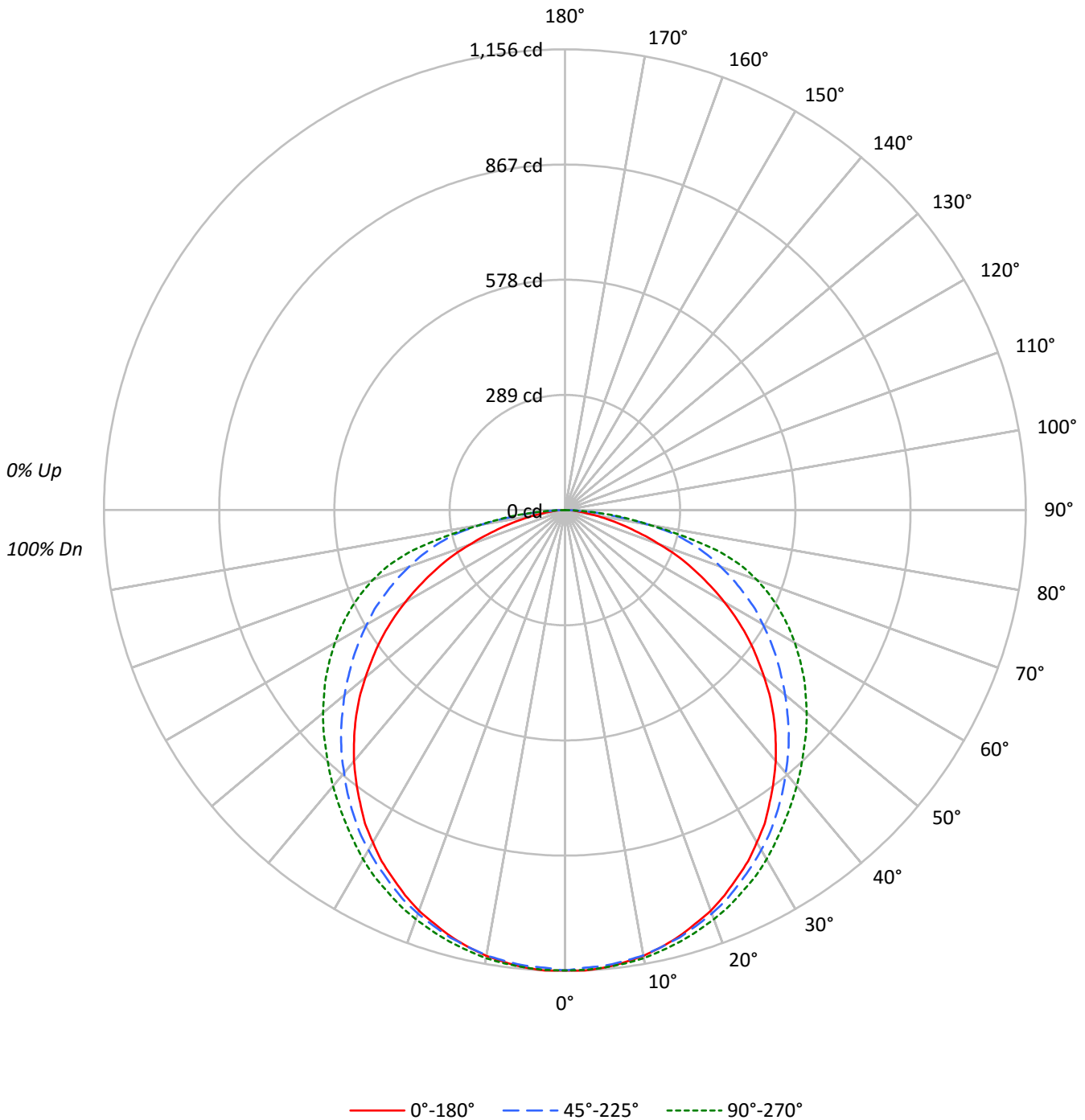
Input Watts (W): 40.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1554	1554	1554
5°	1556	1550	1556
10°	1552	1550	1560
15°	1543	1547	1561
20°	1532	1543	1564
25°	1513	1536	1567
30°	1496	1530	1572
35°	1471	1523	1574
40°	1445	1513	1589
45°	1412	1512	1614
50°	1366	1510	1657
55°	1318	1521	1717
60°	1243	1544	1793
65°	1148	1580	1893
70°	1003	1636	2017
75°	814	1720	2084
80°	600	1686	1686
85°	460	1243	1403



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	3.1
10°-20°	314.2	8.8
20°-30°	478.3	13.4
30°-40°	580.8	16.3
40°-50°	613.6	17.2
50°-60°	579.0	16.3
60°-70°	481.4	13.5
70°-80°	316.7	8.9
80°-90°	86.3	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°	902.0	25.3
0°-40°	1482.8	41.7
0°-60°	2675.5	75.2
0°-90°	3560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3560.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1152	1152	1148	1152	1152	109
15°	1107	1109	1110	1121	1121	312
25°	1019	1025	1034	1052	1055	470
35°	896	906	927	951	958	561
45°	742	757	794	833	848	572
55°	562	586	648	709	732	500
65°	361	402	496	569	595	357
75°	156	228	331	392	401	169
85°	30	66	80	89	91	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1155.0	1155.0	1155.0	1155.0	1155.0
2.5°	1156.5	1155.0	1149.1	1155.0	1155.0
5°	1152.1	1152.1	1147.6	1152.1	1152.1
7.5°	1144.6	1144.6	1141.6	1147.6	1147.6
10°	1135.7	1135.7	1134.2	1141.6	1141.6
12.5°	1122.3	1123.7	1122.3	1131.2	1131.2
15°	1107.4	1108.8	1110.3	1120.8	1120.8
17.5°	1088.0	1091.0	1093.9	1105.9	1107.4
20°	1070.1	1071.6	1077.5	1091.0	1092.4
22.5°	1046.2	1050.7	1058.2	1071.6	1076.1
25°	1019.4	1025.4	1034.3	1052.2	1055.2
27.5°	994.1	998.6	1010.5	1029.9	1035.8
30°	962.8	970.2	985.1	1004.5	1012.0
32.5°	933.0	940.4	958.3	979.2	985.1
35°	895.7	906.2	927.0	950.9	958.3
37.5°	859.9	870.4	895.7	922.5	931.5
40°	822.7	834.6	861.4	892.7	904.7
42.5°	782.4	798.8	828.7	862.9	876.3
45°	742.2	757.1	794.4	833.1	848.0
47.5°	699.0	716.9	757.1	803.3	821.2
50°	652.8	675.1	721.3	772.0	791.4
52.5°	606.6	631.9	684.1	740.7	761.6
55°	561.9	585.7	648.3	709.4	731.8
57.5°	512.7	542.5	611.1	676.6	699.0
60°	462.0	494.8	573.8	642.4	666.2
62.5°	411.3	448.6	538.0	606.6	631.9
65°	360.7	402.4	496.3	569.3	594.7
67.5°	311.5	357.7	457.5	530.6	555.9
70°	254.9	313.0	415.8	487.4	512.7
72.5°	202.7	269.8	375.6	442.6	465.0
75°	156.5	228.0	330.9	392.0	400.9
77.5°	114.8	186.3	284.7	305.5	307.0
80°	77.5	149.0	217.6	214.6	217.6
82.5°	50.7	111.8	137.1	153.5	155.0
85°	29.8	65.6	80.5	89.4	90.9
87.5°	14.9	22.4	28.3	29.8	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)