

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: P309509

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-HRP-CA125-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: P309509
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-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 3187.0 lumens
Efficiency: N/A
Efficacy: 83.0 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

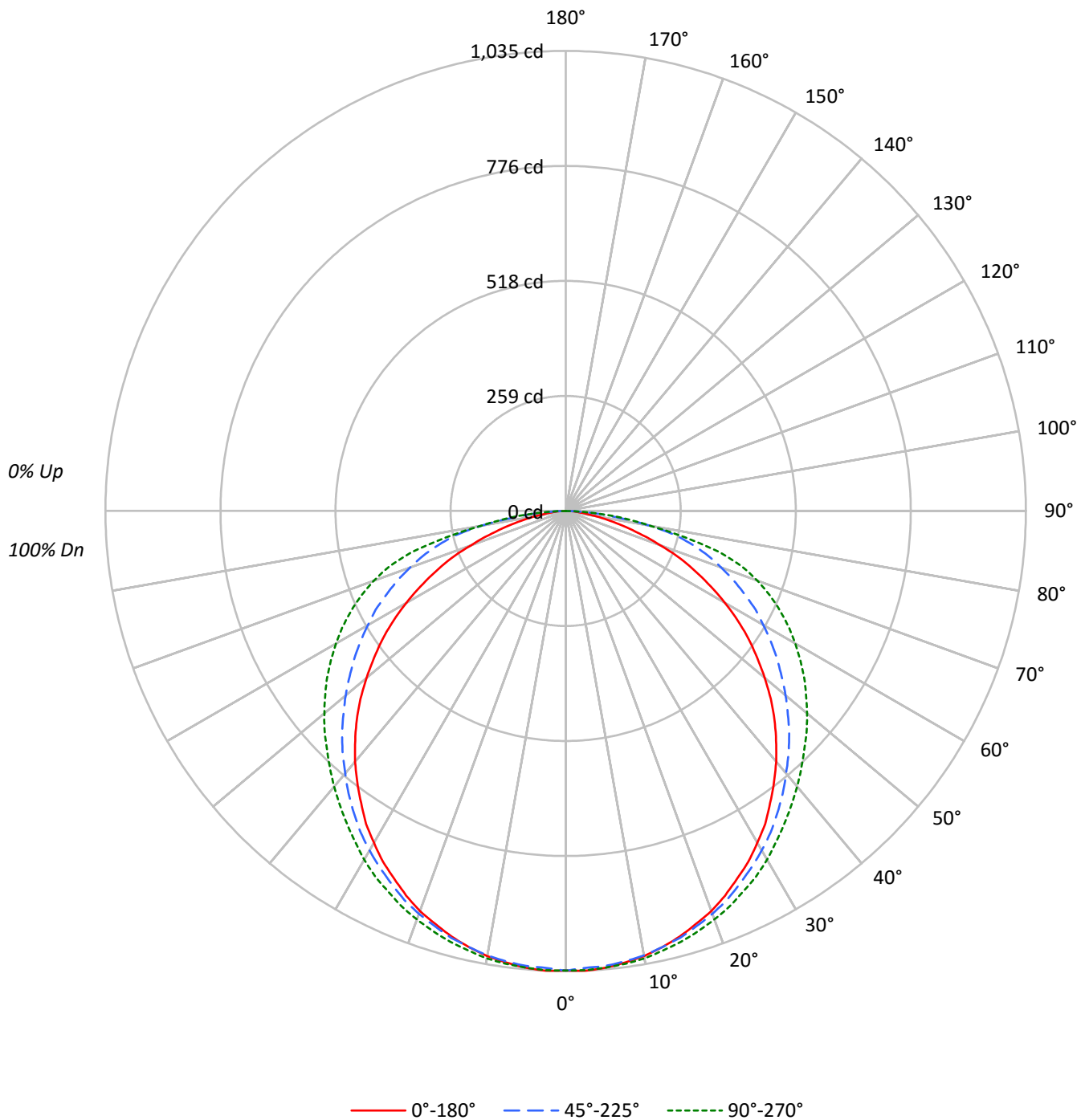
Input Watts (W): 38.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1391	1391	1391
5°	1393	1388	1393
10°	1389	1387	1396
15°	1381	1385	1398
20°	1372	1381	1400
25°	1355	1375	1402
30°	1339	1370	1407
35°	1317	1363	1409
40°	1294	1355	1423
45°	1264	1353	1445
50°	1223	1352	1483
55°	1180	1361	1537
60°	1113	1382	1605
65°	1028	1415	1695
70°	898	1464	1806
75°	728	1540	1866
80°	538	1509	1509
85°	412	1112	1257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.0	3.1
10°-20°	281.3	8.8
20°-30°	428.2	13.4
30°-40°	520.0	16.3
40°-50°	549.3	17.2
50°-60°	518.4	16.3
60°-70°	431.0	13.5
70°-80°	283.6	8.9
80°-90°	77.3	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°	807.5	25.3
0°-40°	1327.4	41.7
0°-60°	2395.2	75.2
0°-90°	3187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3187.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	1031	1031	1027	1031	1031	98
15°	991	993	994	1003	1003	280
25°	913	918	926	942	945	421
35°	802	811	830	851	858	502
45°	664	678	711	746	759	512
55°	503	524	580	635	655	448
65°	323	360	444	510	532	319
75°	140	204	296	351	359	151
85°	27	59	72	80	81	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.0	1034.0	1034.0	1034.0	1034.0
2.5°	1035.4	1034.0	1028.7	1034.0	1034.0
5°	1031.4	1031.4	1027.4	1031.4	1031.4
7.5°	1024.7	1024.7	1022.0	1027.4	1027.4
10°	1016.7	1016.7	1015.3	1022.0	1022.0
12.5°	1004.7	1006.0	1004.7	1012.7	1012.7
15°	991.3	992.7	994.0	1003.3	1003.3
17.5°	974.0	976.7	979.3	990.0	991.3
20°	958.0	959.3	964.6	976.7	978.0
22.5°	936.6	940.6	947.3	959.3	963.3
25°	912.6	917.9	926.0	942.0	944.6
27.5°	889.9	893.9	904.6	921.9	927.3
30°	861.9	868.6	881.9	899.3	905.9
32.5°	835.2	841.9	857.9	876.6	881.9
35°	801.9	811.2	829.9	851.2	857.9
37.5°	769.8	779.2	801.9	825.9	833.9
40°	736.5	747.2	771.2	799.2	809.9
42.5°	700.5	715.1	741.8	772.5	784.5
45°	664.4	677.8	711.1	745.8	759.2
47.5°	625.8	641.8	677.8	719.1	735.2
50°	584.4	604.4	645.8	691.1	708.5
52.5°	543.0	565.7	612.4	663.1	681.8
55°	503.0	524.4	580.4	635.1	655.1
57.5°	459.0	485.7	547.0	605.7	625.8
60°	413.6	443.0	513.7	575.1	596.4
62.5°	368.2	401.6	481.7	543.0	565.7
65°	322.9	360.2	444.3	509.7	532.4
67.5°	278.9	320.2	409.6	475.0	497.7
70°	228.2	280.2	372.2	436.3	459.0
72.5°	181.5	241.5	336.2	396.3	416.3
75°	140.1	204.1	296.2	350.9	358.9
77.5°	102.7	166.8	254.8	273.5	274.9
80°	69.4	133.4	194.8	192.1	194.8
82.5°	45.4	100.1	122.7	137.4	138.8
85°	26.7	58.7	72.0	80.1	81.4
87.5°	13.3	20.0	25.4	26.7	29.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)