

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: P309426

Luminaire Tested: **24FCZ2-45HE-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P309426
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: 24FCZ2-45HE-UNV-L82765-HRP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 3232.0 lumens
Efficiency: N/A
Efficacy: 93.1 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

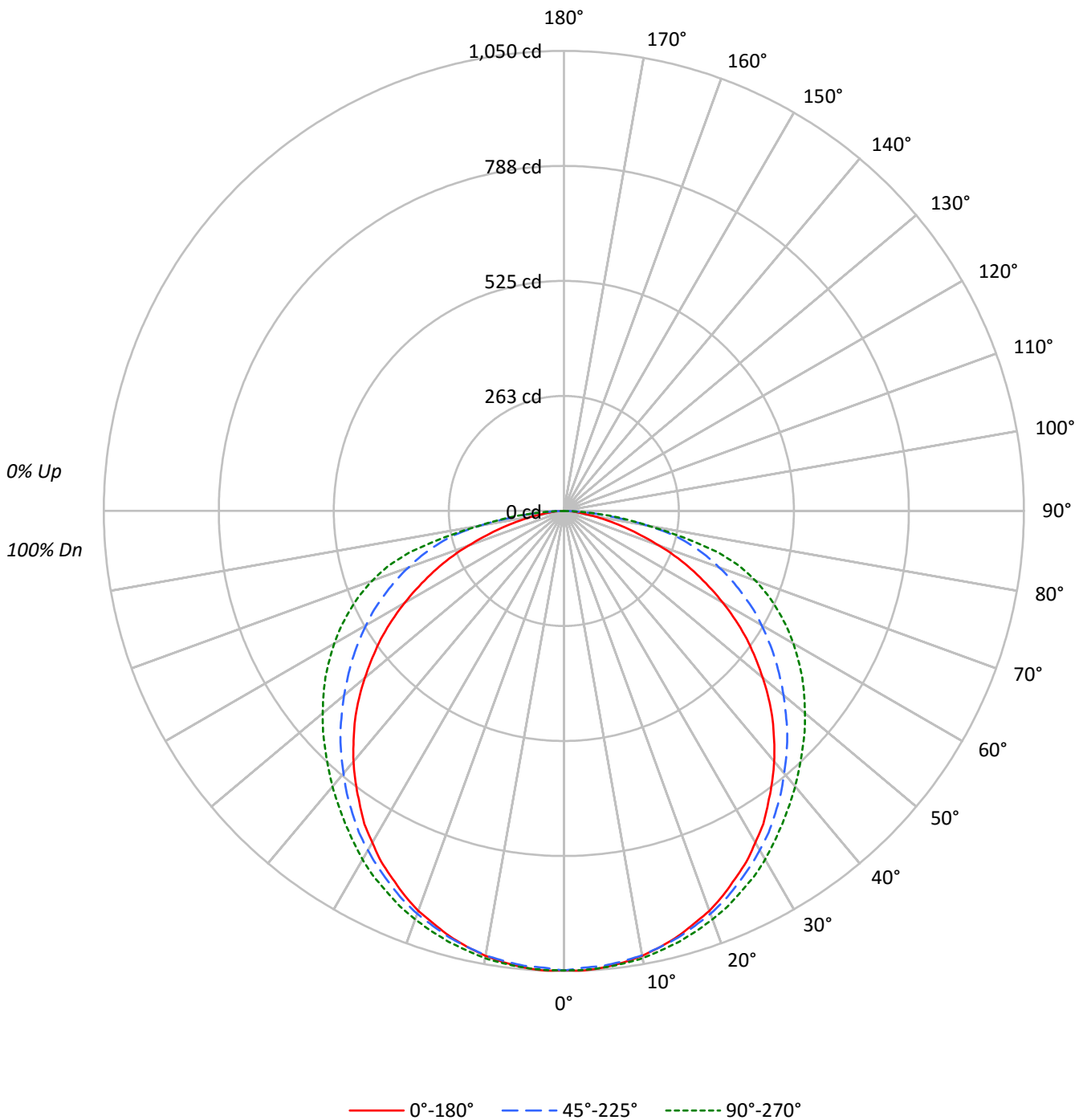
Input Watts (W): 34.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309426

CATALOG NUMBER: 24FCZ2-45HE-UNV-L82765-HRP-CA125-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P309426

CATALOG NUMBER: 24FCZ2-45HE-UNV-L82765-HRP-CA125-W2A-U-5700K

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°	1411	1411	1411
5°	1413	1407	1413
10°	1409	1407	1416
15°	1400	1404	1417
20°	1391	1401	1420
25°	1374	1394	1422
30°	1358	1390	1427
35°	1336	1382	1429
40°	1312	1374	1443
45°	1282	1372	1465
50°	1240	1371	1504
55°	1197	1381	1559
60°	1129	1402	1628
65°	1042	1435	1719
70°	910	1485	1831
75°	739	1562	1892
80°	545	1530	1530
85°	418	1129	1274



TEST NUMBER: P309426

CATALOG NUMBER: 24FCZ2-45HE-UNV-L82765-HRP-CA125-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	3.1
10°-20°	285.3	8.8
20°-30°	434.3	13.4
30°-40°	527.3	16.3
40°-50°	557.1	17.2
50°-60°	525.7	16.3
60°-70°	437.1	13.5
70°-80°	287.6	8.9
80°-90°	78.4	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°	818.9	25.3
0°-40°	1346.2	41.7
0°-60°	2429.0	75.2
0°-90°	3232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3232.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1046	1046	1042	1046	1046	99
15°	1005	1007	1008	1018	1018	284
25°	926	931	939	955	958	427
35°	813	823	842	863	870	509
45°	674	687	721	756	770	519
55°	510	532	589	644	664	454
65°	327	365	451	517	540	324
75°	142	207	300	356	364	153
85°	27	60	73	81	82	33
90°	0	0	0	0	0	



TEST NUMBER: P309426

CATALOG NUMBER: 24FCZ2-45HE-UNV-L82765-HRP-CA125-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.6	1048.6	1048.6	1048.6	1048.6
2.5°	1050.0	1048.6	1043.2	1048.6	1048.6
5°	1045.9	1045.9	1041.9	1045.9	1045.9
7.5°	1039.2	1039.2	1036.4	1041.9	1041.9
10°	1031.0	1031.0	1029.7	1036.4	1036.4
12.5°	1018.9	1020.2	1018.9	1027.0	1027.0
15°	1005.3	1006.7	1008.0	1017.5	1017.5
17.5°	987.7	990.4	993.1	1004.0	1005.3
20°	971.5	972.9	978.3	990.4	991.8
22.5°	949.9	953.9	960.7	972.9	976.9
25°	925.5	930.9	939.0	955.3	958.0
27.5°	902.5	906.6	917.4	935.0	940.4
30°	874.1	880.8	894.4	912.0	918.7
32.5°	847.0	853.8	870.0	889.0	894.4
35°	813.2	822.7	841.6	863.3	870.0
37.5°	780.7	790.2	813.2	837.5	845.7
40°	746.9	757.7	782.1	810.5	821.3
42.5°	710.4	725.2	752.3	783.4	795.6
45°	673.8	687.4	721.2	756.4	769.9
47.5°	634.6	650.8	687.4	729.3	745.5
50°	592.6	612.9	654.9	700.9	718.5
52.5°	550.7	573.7	621.1	672.5	691.4
55°	510.1	531.8	588.6	644.1	664.4
57.5°	465.5	492.5	554.8	614.3	634.6
60°	419.4	449.2	520.9	583.2	604.8
62.5°	373.4	407.3	488.5	550.7	573.7
65°	327.4	365.3	450.6	516.9	539.9
67.5°	282.8	324.7	415.4	481.7	504.7
70°	231.4	284.1	377.5	442.5	465.5
72.5°	184.0	244.9	341.0	401.9	422.2
75°	142.1	207.0	300.4	355.9	364.0
77.5°	104.2	169.1	258.4	277.4	278.7
80°	70.4	135.3	197.5	194.8	197.5
82.5°	46.0	101.5	124.5	139.4	140.7
85°	27.1	59.5	73.1	81.2	82.5
87.5°	13.5	20.3	25.7	27.1	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)