

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: P310785

Luminaire Tested: **24FCZ2-45HE-UNV-L82765-CP125-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: P310785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 4177.0 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

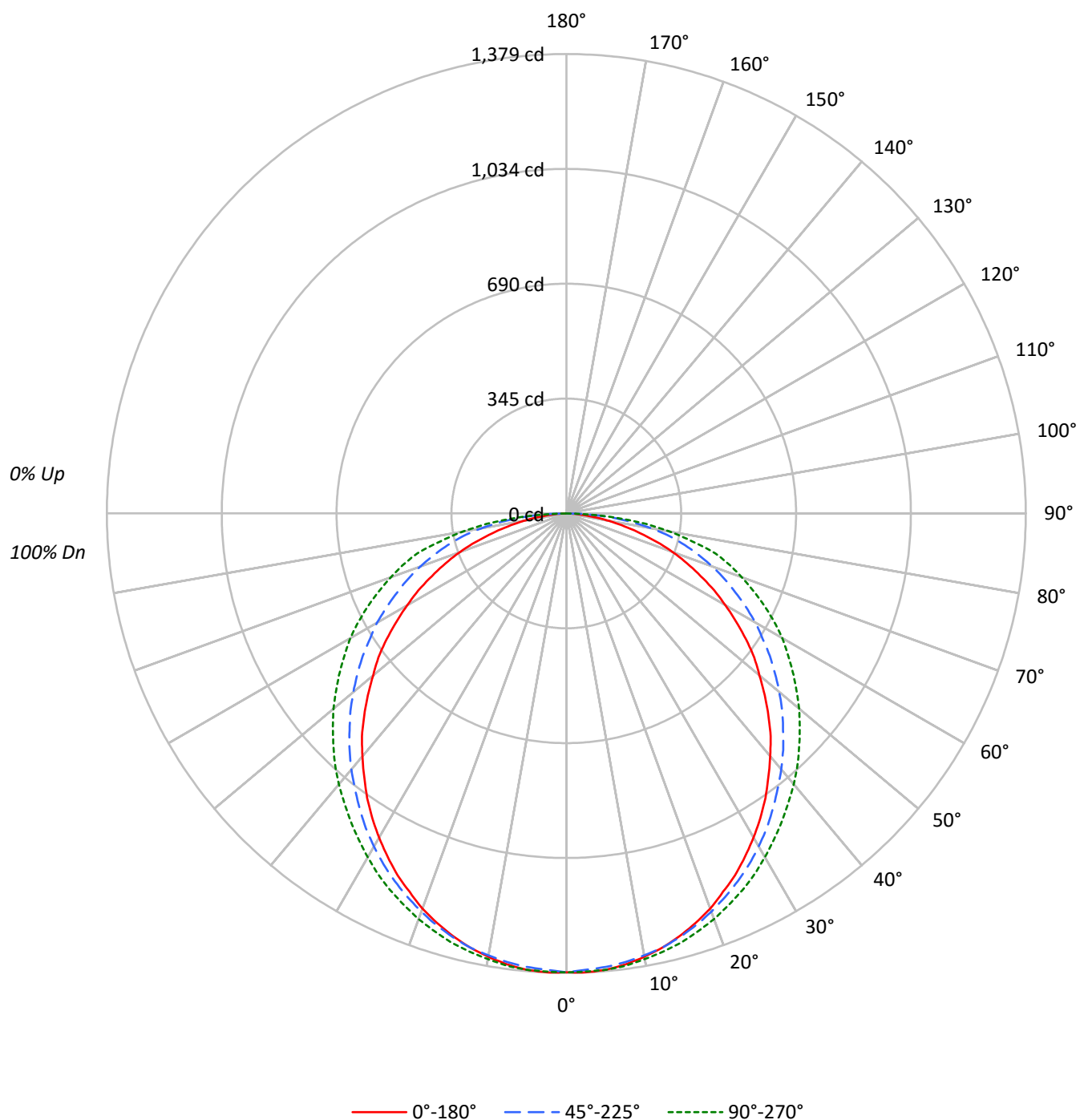
Input Watts (W): 34.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	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	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1853	1853	1853
5°	1857	1846	1857
10°	1846	1840	1855
15°	1830	1834	1857
20°	1808	1822	1855
25°	1780	1809	1854
30°	1746	1794	1852
35°	1712	1776	1853
40°	1672	1762	1865
45°	1632	1751	1880
50°	1584	1746	1909
55°	1544	1749	1947
60°	1484	1764	2014
65°	1416	1783	2087
70°	1341	1837	2203
75°	1196	1916	2406
80°	1020	2029	2459
85°	727	2012	2353



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.4	3.1
10°-20°	372.8	8.9
20°-30°	563.0	13.5
30°-40°	678.6	16.2
40°-50°	712.4	17.1
50°-60°	666.5	16.0
60°-70°	550.4	13.2
70°-80°	375.0	9.0
80°-90°	127.9	3.1
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°	1066.2	25.5
0°-40°	1744.8	41.8
0°-60°	3123.6	74.8
0°-90°	4177.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4177.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1375	1373	1366	1375	1375	130
15°	1314	1315	1317	1330	1333	370
25°	1199	1204	1218	1242	1249	552
35°	1042	1053	1081	1117	1128	651
45°	858	876	920	970	988	662
55°	658	685	746	807	830	588
65°	445	482	560	631	656	441
75°	230	283	369	438	463	245
85°	47	93	130	147	152	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1377.5	1377.5	1377.5	1377.5	1377.5
2.5°	1378.9	1377.5	1370.6	1377.5	1376.2
5°	1374.8	1373.4	1366.5	1374.8	1374.8
7.5°	1365.1	1365.1	1358.1	1367.8	1369.2
10°	1351.2	1351.2	1347.0	1358.1	1358.1
12.5°	1334.6	1334.6	1334.6	1345.7	1347.0
15°	1313.8	1315.2	1316.6	1330.4	1333.2
17.5°	1288.8	1291.6	1295.8	1312.4	1315.2
20°	1262.5	1265.3	1272.2	1291.6	1295.8
22.5°	1229.3	1236.2	1245.9	1268.1	1272.2
25°	1198.8	1204.3	1218.2	1241.7	1248.7
27.5°	1161.3	1169.7	1187.7	1212.6	1222.3
30°	1123.9	1132.2	1154.4	1183.5	1191.8
32.5°	1083.7	1096.2	1119.8	1150.3	1160.0
35°	1042.2	1053.2	1081.0	1117.0	1128.1
37.5°	996.4	1011.7	1042.2	1081.0	1094.8
40°	952.1	968.7	1003.4	1044.9	1061.6
42.5°	907.7	924.4	963.2	1010.3	1026.9
45°	857.8	875.9	920.2	970.1	988.1
47.5°	808.0	830.1	878.6	931.3	950.7
50°	756.7	781.6	834.3	889.7	911.9
52.5°	710.9	734.5	789.9	849.5	870.3
55°	658.3	684.6	745.6	806.6	830.1
57.5°	604.2	633.3	698.5	765.0	788.6
60°	551.6	583.4	655.5	722.0	748.4
62.5°	500.3	532.2	607.0	676.3	702.6
65°	444.9	482.3	559.9	630.6	655.5
67.5°	392.2	432.4	514.2	583.4	608.4
70°	340.9	379.7	467.0	534.9	559.9
72.5°	285.5	329.8	417.1	487.8	514.2
75°	230.1	282.7	368.6	437.9	462.9
77.5°	178.8	232.8	318.7	375.6	388.0
80°	131.7	187.1	261.9	302.1	317.4
82.5°	84.5	140.0	199.6	228.7	241.1
85°	47.1	92.9	130.3	146.9	152.4
87.5°	19.4	40.2	52.7	59.6	59.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)