

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: P313765

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CA08-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: P313765  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-75HE-UNV-L83050-RDP-CA08-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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**

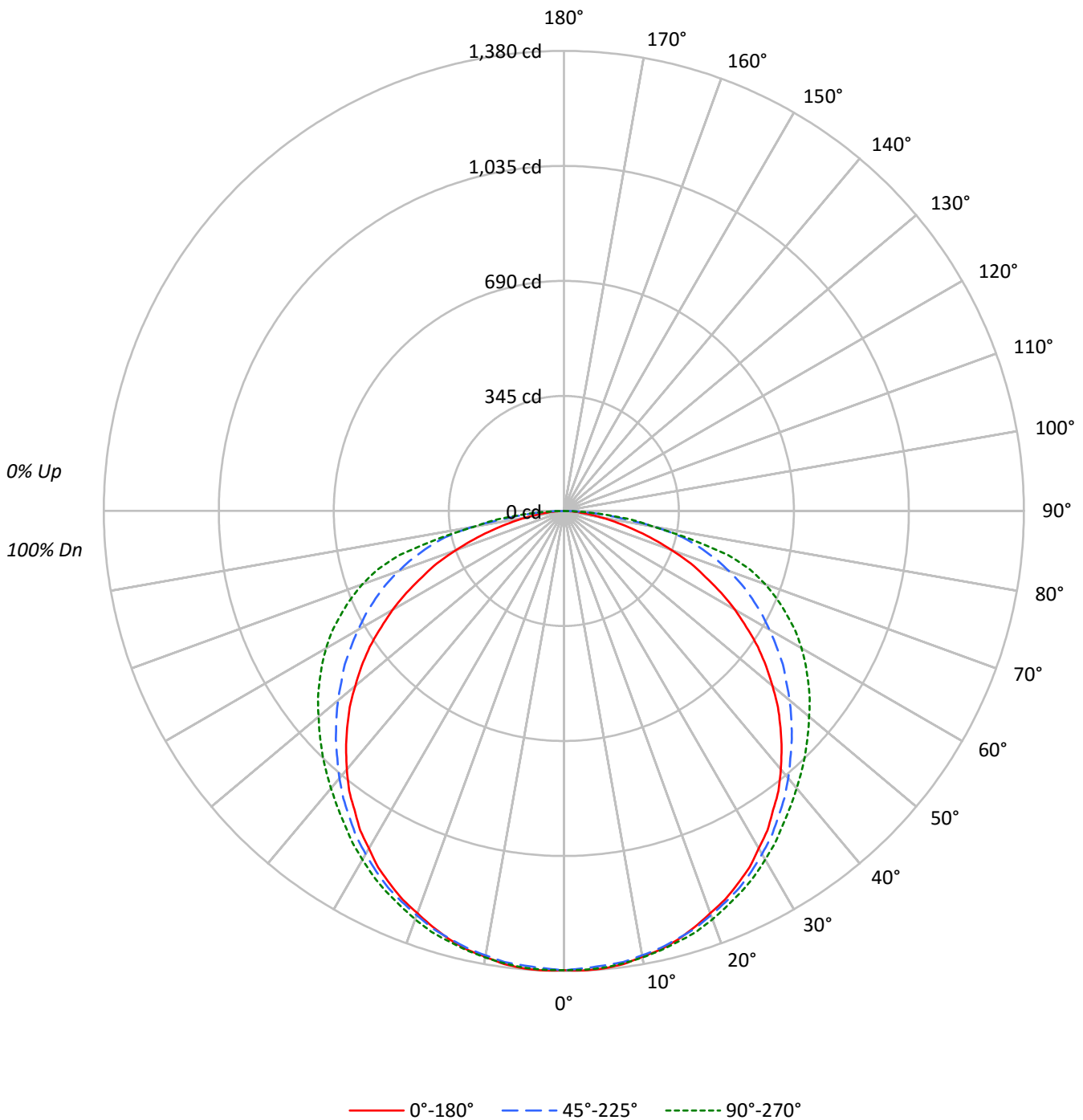
Lumens per Lamp: N/A  
Luminaire Lumens: 4380.0 lumens  
Efficiency: N/A  
Efficacy: 69.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1853	1853	1853
5°	1860	1849	1857
10°	1855	1849	1858
15°	1852	1849	1861
20°	1838	1848	1866
25°	1832	1851	1871
30°	1816	1846	1877
35°	1799	1841	1884
40°	1778	1839	1908
45°	1749	1840	1951
50°	1710	1851	2010
55°	1666	1881	2100
60°	1596	1918	2216
65°	1494	1985	2352
70°	1359	2077	2530
75°	1152	2191	2643
80°	909	2205	2138
85°	672	1677	1879



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.7	3.0
10°-20°	376.0	8.6
20°-30°	575.0	13.1
30°-40°	703.0	16.0
40°-50°	749.2	17.1
50°-60°	716.4	16.4
60°-70°	606.8	13.9
70°-80°	407.9	9.3
80°-90°	115.1	2.6
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°	1081.7	24.7
0°-40°	1784.7	40.7
0°-60°	3250.3	74.2
0°-90°	4380.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4380.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1375	1369	1375	1375	131
15°	1330	1330	1327	1338	1336	375
25°	1234	1238	1247	1258	1260	569
35°	1095	1104	1121	1143	1147	686
45°	919	934	967	1008	1025	709
55°	710	736	802	865	895	633
65°	469	517	624	706	739	466
75°	222	302	422	493	508	237
85°	44	89	109	117	122	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1377.4	1377.4	1377.4	1377.4	1377.4
2.5°	1379.6	1379.6	1373.0	1377.4	1377.4
5°	1377.4	1375.2	1368.7	1375.2	1375.2
7.5°	1370.9	1368.7	1364.3	1370.9	1368.7
10°	1357.8	1357.8	1353.5	1360.0	1360.0
12.5°	1347.0	1344.8	1342.6	1351.3	1349.1
15°	1329.6	1329.6	1327.4	1338.3	1336.1
17.5°	1307.9	1310.0	1312.2	1320.9	1323.1
20°	1284.0	1288.3	1290.5	1303.5	1303.5
22.5°	1262.2	1264.4	1268.8	1281.8	1281.8
25°	1234.0	1238.3	1247.0	1257.9	1260.1
27.5°	1205.8	1207.9	1218.8	1234.0	1236.2
30°	1168.8	1175.3	1188.4	1205.8	1207.9
32.5°	1136.2	1142.8	1158.0	1175.3	1179.7
35°	1095.0	1103.6	1121.0	1142.8	1147.1
37.5°	1058.0	1064.5	1086.3	1110.2	1116.7
40°	1012.4	1025.4	1047.2	1075.4	1086.3
42.5°	966.8	979.8	1005.9	1042.8	1055.9
45°	919.0	934.2	966.8	1008.1	1025.4
47.5°	871.2	888.6	925.5	973.3	992.8
50°	816.9	838.6	884.2	938.5	960.3
52.5°	764.7	790.8	840.8	901.6	929.8
55°	710.4	736.5	801.7	864.7	895.1
57.5°	649.6	684.3	756.0	827.7	860.3
60°	593.1	625.7	712.6	790.8	823.4
62.5°	532.3	575.7	669.1	751.7	784.3
65°	469.3	517.1	623.5	706.1	738.7
67.5°	412.8	464.9	577.9	660.4	693.0
70°	345.4	410.6	527.9	610.5	643.1
72.5°	282.4	354.1	475.8	556.2	586.6
75°	221.6	302.0	421.5	493.2	508.4
77.5°	165.1	249.8	365.0	395.4	384.5
80°	117.3	199.9	284.6	269.4	275.9
82.5°	76.0	152.1	176.0	199.9	206.4
85°	43.5	89.1	108.6	117.3	121.7
87.5°	19.6	32.6	43.5	43.5	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)