

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: P314525

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CP125-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: P314525
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-S-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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

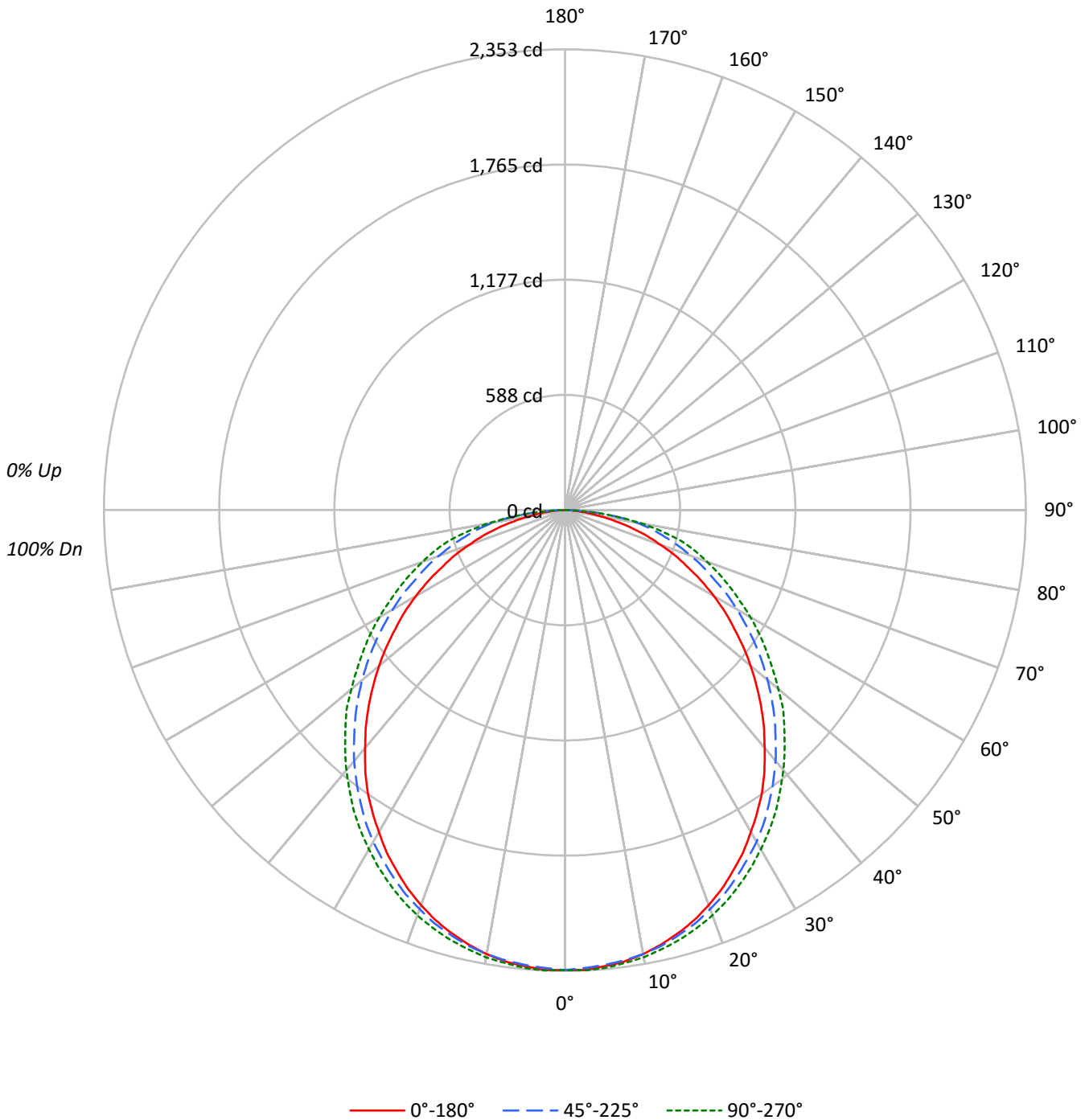
Lumens per Lamp: N/A
Luminaire Lumens: 6686.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 62.7
Input Voltage (V): NR
Input Current (A_{in}): 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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3160	3160	3160
5°	3158	3149	3170
10°	3145	3145	3168
15°	3115	3130	3162
20°	3074	3105	3153
25°	3017	3074	3134
30°	2950	3039	3108
35°	2885	2989	3084
40°	2786	2939	3048
45°	2695	2881	3015
50°	2592	2827	2978
55°	2476	2775	2949
60°	2360	2732	2943
65°	2211	2684	2961
70°	2047	2699	3041
75°	1832	2749	3213
80°	1481	2913	3143
85°	1115	2558	2492



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.4	3.3
10°-20°	635.4	9.5
20°-30°	955.1	14.3
30°-40°	1137.7	17.0
40°-50°	1164.4	17.4
50°-60°	1048.3	15.7
60°-70°	823.2	12.3
70°-80°	534.3	8.0
80°-90°	165.3	2.5
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°	1812.9	27.1
0°-40°	2950.6	44.1
0°-60°	5163.2	77.2
0°-90°	6686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2349	2349	2349	2349	2349	
5°	2338	2342	2332	2345	2347	222
15°	2236	2243	2247	2266	2270	631
25°	2032	2049	2071	2105	2111	936
35°	1756	1778	1820	1865	1877	1096
45°	1416	1450	1514	1572	1584	1092
55°	1056	1102	1183	1244	1257	946
65°	694	748	843	913	930	691
75°	352	420	529	601	618	373
85°	72	134	166	161	161	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2348.8	2348.8	2348.8	2348.8	2348.8
2.5°	2351.0	2351.0	2340.3	2351.0	2353.1
5°	2338.2	2342.5	2331.8	2344.6	2346.7
7.5°	2325.5	2325.5	2319.1	2331.8	2334.0
10°	2302.1	2304.2	2302.1	2317.0	2319.1
12.5°	2272.4	2276.6	2278.8	2293.6	2295.7
15°	2236.3	2242.6	2246.9	2266.0	2270.3
17.5°	2195.9	2202.3	2212.9	2234.2	2238.4
20°	2147.1	2155.6	2168.3	2195.9	2202.3
22.5°	2094.0	2102.5	2123.7	2149.2	2159.8
25°	2032.4	2049.4	2070.6	2104.6	2111.0
27.5°	1970.8	1985.7	2013.3	2049.4	2057.9
30°	1898.6	1922.0	1955.9	1992.1	2000.5
32.5°	1828.5	1851.9	1892.2	1930.5	1941.1
35°	1756.3	1777.6	1820.0	1864.6	1877.4
37.5°	1673.5	1701.1	1747.8	1792.4	1805.2
40°	1586.4	1620.4	1673.5	1720.2	1735.1
42.5°	1503.6	1539.7	1592.8	1643.8	1660.7
45°	1416.5	1450.5	1514.2	1571.6	1584.3
47.5°	1327.3	1365.6	1433.5	1490.9	1512.1
50°	1238.1	1278.5	1350.7	1410.2	1422.9
52.5°	1148.9	1191.4	1267.9	1331.6	1337.9
55°	1055.5	1102.2	1182.9	1244.5	1257.2
57.5°	970.5	1010.9	1098.0	1161.7	1176.5
60°	877.1	921.7	1015.1	1074.6	1093.7
62.5°	787.9	834.6	932.3	991.8	1008.8
65°	694.5	747.5	843.1	913.2	930.2
67.5°	613.8	664.7	766.7	834.6	851.6
70°	520.3	577.7	686.0	756.0	773.0
72.5°	439.6	499.1	607.4	675.3	700.8
75°	352.5	420.5	528.8	601.0	618.0
77.5°	267.6	346.2	456.6	511.8	511.8
80°	191.1	274.0	375.9	401.4	405.6
82.5°	125.3	206.0	278.2	276.1	276.1
85°	72.2	133.8	165.7	161.4	161.4
87.5°	27.6	55.2	59.5	59.5	57.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)