

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: P314141

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-CA08-W2A-U-3500K**

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: P314141
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: 24FCZ2-75HE-UNV-L83050-CA08-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 3500K 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: 6892.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

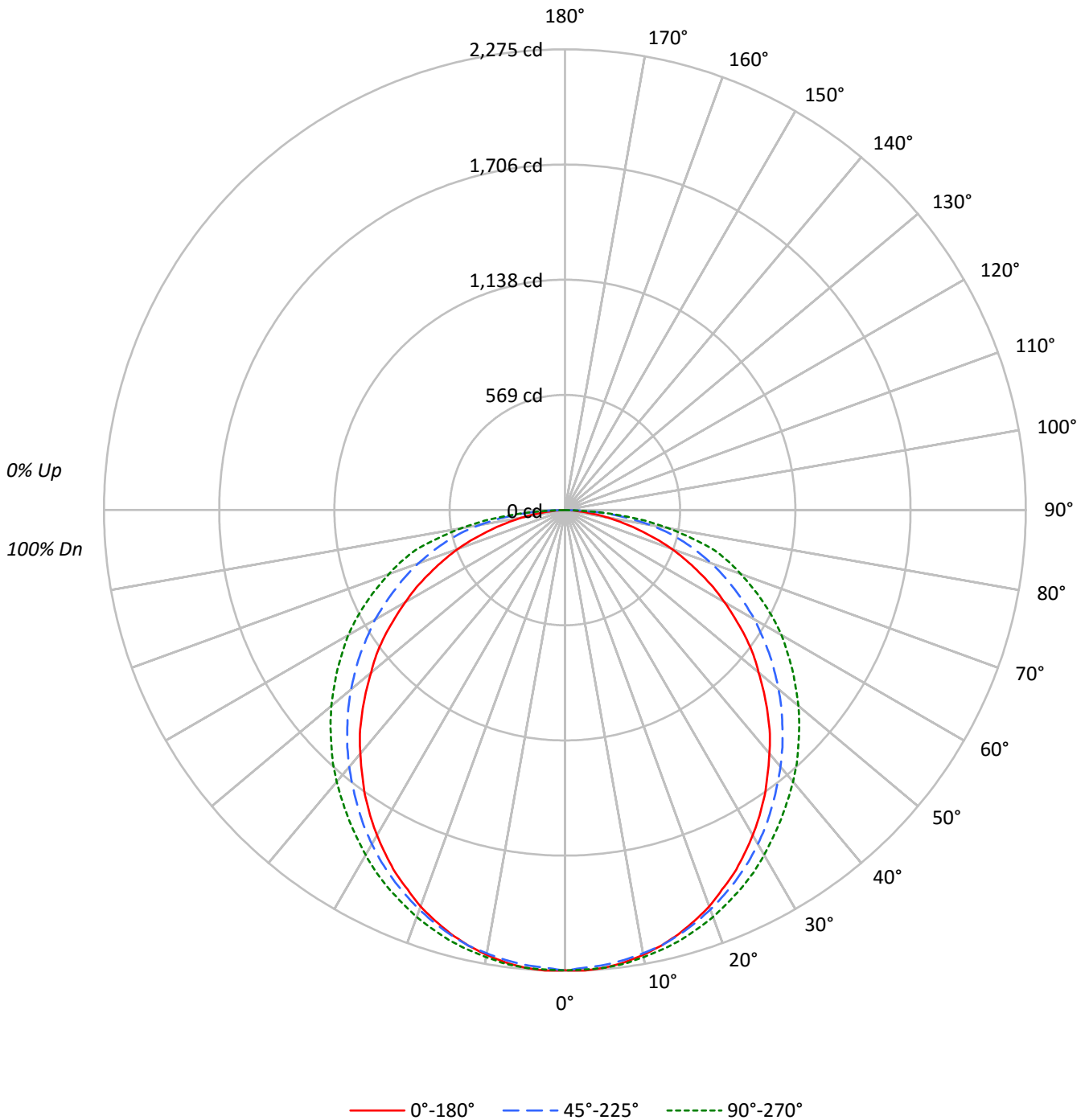
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3058	3058	3058
5°	3064	3045	3064
10°	3046	3037	3062
15°	3020	3026	3064
20°	2983	3006	3061
25°	2936	2984	3059
30°	2881	2959	3055
35°	2825	2930	3057
40°	2759	2908	3077
45°	2693	2889	3102
50°	2613	2882	3149
55°	2548	2886	3213
60°	2449	2911	3323
65°	2337	2941	3443
70°	2213	3032	3634
75°	1973	3162	3970
80°	1683	3349	4057
85°	1200	3318	3883



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.1	3.1
10°-20°	615.1	8.9
20°-30°	929.0	13.5
30°-40°	1119.7	16.2
40°-50°	1175.4	17.1
50°-60°	1099.7	16.0
60°-70°	908.1	13.2
70°-80°	618.8	9.0
80°-90°	211.0	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°	1759.2	25.5
0°-40°	2878.8	41.8
0°-60°	5154.0	74.8
0°-90°	6892.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2273	2273	2273	2273	2273	
5°	2268	2266	2255	2268	2268	215
15°	2168	2170	2172	2195	2200	611
25°	1978	1987	2010	2049	2060	910
35°	1720	1738	1784	1843	1861	1075
45°	1415	1445	1518	1601	1630	1092
55°	1086	1130	1230	1331	1370	969
65°	734	796	924	1040	1082	728
75°	380	466	608	723	764	405
85°	78	153	215	242	252	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2272.9	2272.9	2272.9	2272.9	2272.9
2.5°	2275.2	2272.9	2261.5	2272.9	2270.6
5°	2268.3	2266.1	2254.6	2268.3	2268.3
7.5°	2252.3	2252.3	2240.9	2256.9	2259.2
10°	2229.5	2229.5	2222.6	2240.9	2240.9
12.5°	2202.0	2202.0	2202.0	2220.3	2222.6
15°	2167.7	2170.0	2172.3	2195.2	2199.7
17.5°	2126.6	2131.1	2138.0	2165.4	2170.0
20°	2083.1	2087.7	2099.1	2131.1	2138.0
22.5°	2028.3	2039.7	2055.7	2092.3	2099.1
25°	1977.9	1987.1	2010.0	2048.8	2060.3
27.5°	1916.2	1929.9	1959.7	2000.8	2016.8
30°	1854.5	1868.2	1904.8	1952.8	1966.5
32.5°	1788.2	1808.7	1847.6	1897.9	1913.9
35°	1719.6	1737.8	1783.6	1843.0	1861.3
37.5°	1644.1	1669.2	1719.6	1783.6	1806.4
40°	1570.9	1598.4	1655.5	1724.1	1751.6
42.5°	1497.8	1525.2	1589.2	1667.0	1694.4
45°	1415.4	1445.2	1518.3	1600.6	1630.4
47.5°	1333.1	1369.7	1449.7	1536.6	1568.6
50°	1248.5	1289.7	1376.6	1468.0	1504.6
52.5°	1173.0	1211.9	1303.4	1401.7	1436.0
55°	1086.2	1129.6	1230.2	1330.8	1369.7
57.5°	997.0	1045.0	1152.5	1262.2	1301.1
60°	910.1	962.7	1081.6	1191.3	1234.8
62.5°	825.5	878.1	1001.5	1115.9	1159.3
65°	734.0	795.8	923.8	1040.4	1081.6
67.5°	647.1	713.4	848.3	962.7	1003.8
70°	562.5	626.5	770.6	882.6	923.8
72.5°	471.0	544.2	688.3	804.9	848.3
75°	379.6	466.5	608.2	722.6	763.7
77.5°	295.0	384.2	525.9	619.7	640.3
80°	217.2	308.7	432.2	498.5	523.6
82.5°	139.5	231.0	329.3	377.3	397.9
85°	77.7	153.2	214.9	242.4	251.5
87.5°	32.0	66.3	86.9	98.3	98.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)