

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: P311641

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CP125-W2A-U-6500K**

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: P311641  
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: 24FCZ2-55HE-UNV-L82765-S-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 6500K 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**

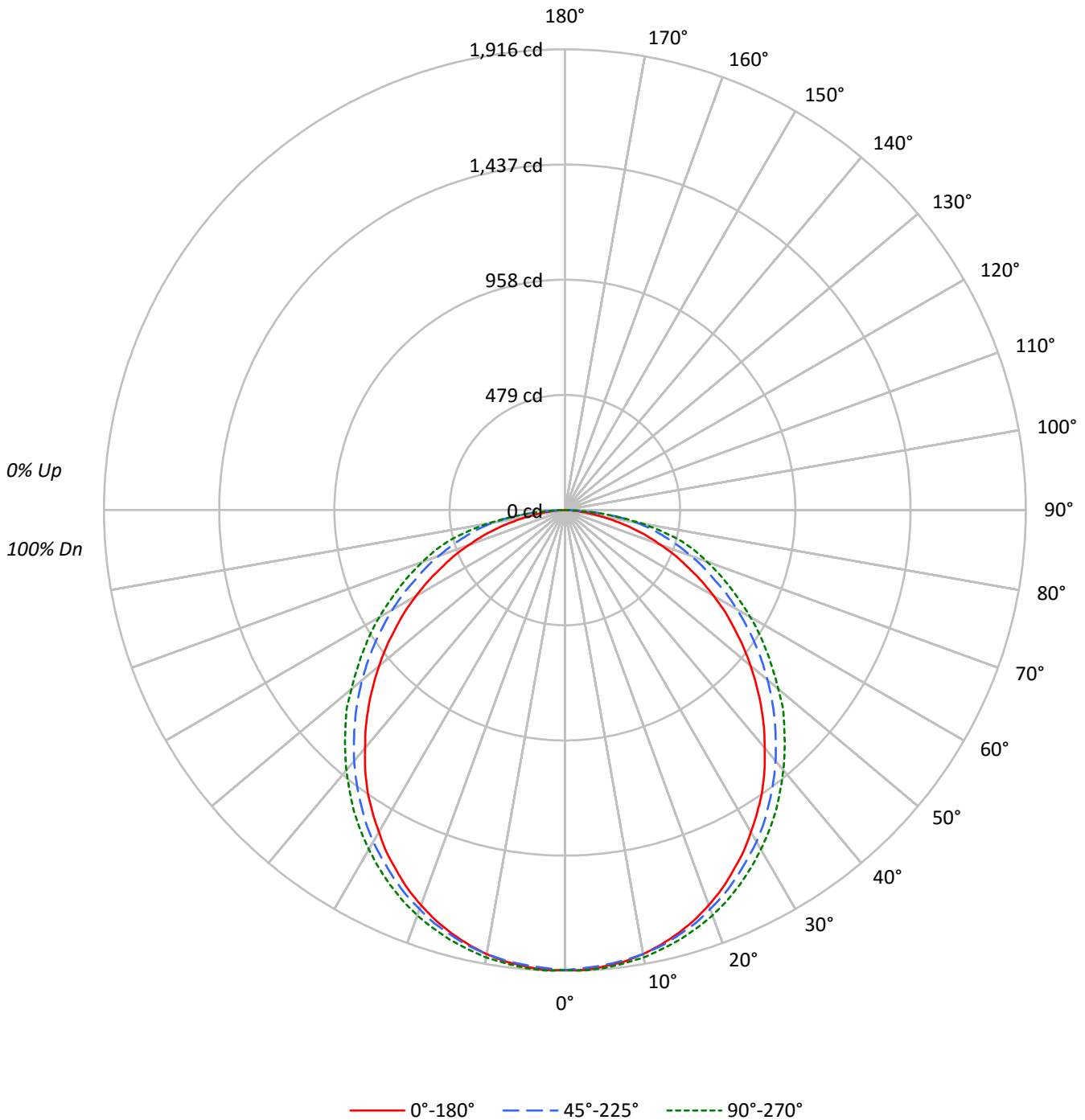
Lumens per Lamp: N/A  
Luminaire Lumens: 5445.0 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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°	2574	2574	2574
5°	2572	2565	2581
10°	2561	2561	2580
15°	2537	2549	2575
20°	2504	2528	2568
25°	2457	2503	2552
30°	2402	2475	2531
35°	2349	2435	2511
40°	2269	2394	2482
45°	2195	2347	2455
50°	2111	2303	2426
55°	2016	2260	2402
60°	1922	2225	2397
65°	1801	2186	2412
70°	1667	2198	2477
75°	1493	2239	2616
80°	1206	2372	2559
85°	908	2083	2029



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.1	3.3
10°-20°	517.4	9.5
20°-30°	777.8	14.3
30°-40°	926.5	17.0
40°-50°	948.3	17.4
50°-60°	853.7	15.7
60°-70°	670.4	12.3
70°-80°	435.1	8.0
80°-90°	134.6	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°	1476.4	27.1
0°-40°	2402.9	44.1
0°-60°	4204.9	77.2
0°-90°	5445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5445.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1913	1913	1913	1913	1913	
5°	1904	1908	1899	1909	1911	181
15°	1821	1826	1830	1845	1849	514
25°	1655	1669	1686	1714	1719	762
35°	1430	1448	1482	1518	1529	892
45°	1154	1181	1233	1280	1290	889
55°	860	898	963	1014	1024	771
65°	566	609	687	744	758	563
75°	287	342	431	490	503	304
85°	59	109	135	131	131	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1912.9	1912.9	1912.9	1912.9	1912.9
2.5°	1914.6	1914.6	1905.9	1914.6	1916.3
5°	1904.2	1907.7	1899.0	1909.4	1911.1
7.5°	1893.8	1893.8	1888.7	1899.0	1900.8
10°	1874.8	1876.5	1874.8	1886.9	1888.7
12.5°	1850.6	1854.1	1855.8	1867.9	1869.6
15°	1821.2	1826.4	1829.8	1845.4	1848.9
17.5°	1788.3	1793.5	1802.2	1819.5	1822.9
20°	1748.6	1755.5	1765.9	1788.3	1793.5
22.5°	1705.3	1712.2	1729.5	1750.3	1758.9
25°	1655.2	1669.0	1686.3	1714.0	1719.2
27.5°	1605.0	1617.1	1639.6	1669.0	1675.9
30°	1546.2	1565.2	1592.9	1622.3	1629.2
32.5°	1489.1	1508.2	1541.0	1572.1	1580.8
35°	1430.3	1447.6	1482.2	1518.5	1528.9
37.5°	1362.9	1385.4	1423.4	1459.7	1470.1
40°	1292.0	1319.6	1362.9	1400.9	1413.0
42.5°	1224.5	1253.9	1297.2	1338.7	1352.5
45°	1153.6	1181.3	1233.2	1279.9	1290.2
47.5°	1081.0	1112.1	1167.4	1214.1	1231.4
50°	1008.3	1041.2	1100.0	1148.4	1158.8
52.5°	935.7	970.3	1032.5	1084.4	1089.6
55°	859.6	897.6	963.4	1013.5	1023.9
57.5°	790.4	823.3	894.2	946.1	958.2
60°	714.3	750.6	826.7	875.1	890.7
62.5°	641.7	679.7	759.3	807.7	821.5
65°	565.6	608.8	686.6	743.7	757.5
67.5°	499.8	541.3	624.4	679.7	693.5
70°	423.7	470.4	558.6	615.7	629.6
72.5°	358.0	406.4	494.6	550.0	570.7
75°	287.1	342.4	430.7	489.5	503.3
77.5°	217.9	281.9	371.8	416.8	416.8
80°	155.7	223.1	306.1	326.9	330.3
82.5°	102.0	167.8	226.6	224.8	224.8
85°	58.8	109.0	134.9	131.4	131.4
87.5°	22.5	45.0	48.4	48.4	46.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)