

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: METALUX

Report Number: P272195

Luminaire Tested: **24CZ2-75HE-S-UNV-L940-CD1-U**

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: P272195  
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: METALUX  
Catalog Number: 24CZ2-75HE-S-UNV-L940-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (392) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

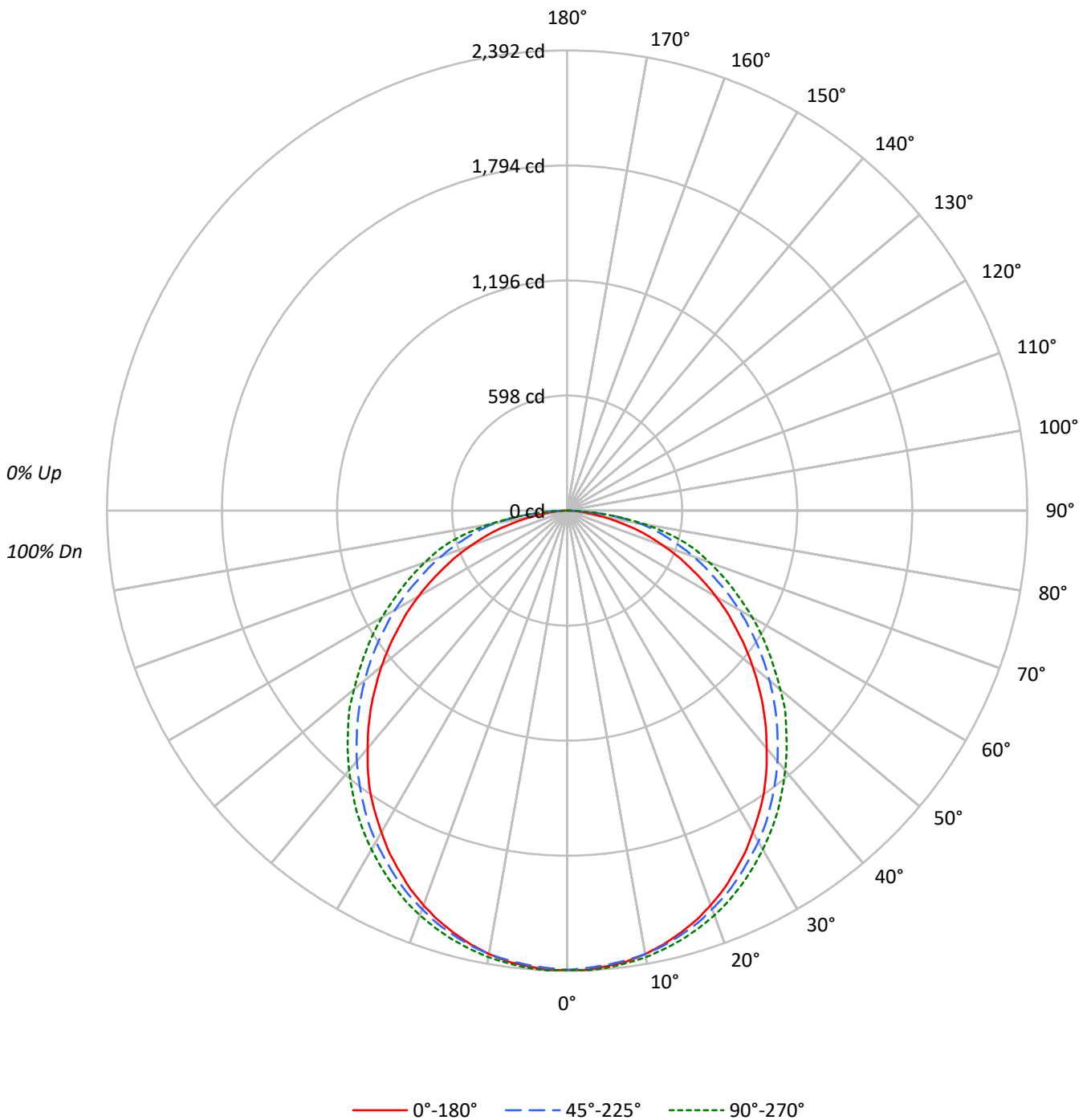
Lumens per Lamp: N/A  
Luminaire Lumens: 6797.0 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 55.4  
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				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°	3213	3213	3213
5°	3210	3202	3222
10°	3197	3197	3221
15°	3167	3182	3215
20°	3125	3156	3206
25°	3067	3125	3186
30°	2999	3089	3160
35°	2933	3039	3135
40°	2833	2988	3098
45°	2740	2929	3065
50°	2635	2874	3028
55°	2517	2821	2998
60°	2400	2777	2992
65°	2248	2729	3011
70°	2081	2744	3092
75°	1863	2795	3266
80°	1506	2961	3195
85°	1133	2600	2533



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.1	3.3
10°-20°	645.9	9.5
20°-30°	971.0	14.3
30°-40°	1156.6	17.0
40°-50°	1183.7	17.4
50°-60°	1065.7	15.7
60°-70°	836.9	12.3
70°-80°	543.2	8.0
80°-90°	168.0	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°	1843.0	27.1
0°-40°	2999.5	44.1
0°-60°	5248.9	77.2
0°-90°	6797.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6797.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2388	2388	2388	2388	2388	
5°	2377	2381	2371	2384	2386	226
15°	2273	2280	2284	2304	2308	641
25°	2066	2083	2105	2140	2146	952
35°	1786	1807	1850	1896	1908	1114
45°	1440	1475	1539	1598	1611	1110
55°	1073	1120	1203	1265	1278	962
65°	706	760	857	928	946	703
75°	358	428	538	611	628	379
85°	73	136	168	164	164	89
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2387.8	2387.8	2387.8	2387.8	2387.8
2.5°	2390.0	2390.0	2379.2	2390.0	2392.1
5°	2377.0	2381.4	2370.6	2383.5	2385.7
7.5°	2364.1	2364.1	2357.6	2370.6	2372.7
10°	2340.3	2342.5	2340.3	2355.4	2357.6
12.5°	2310.1	2314.4	2316.6	2331.7	2333.9
15°	2273.4	2279.9	2284.2	2303.6	2307.9
17.5°	2232.4	2238.9	2249.7	2271.2	2275.6
20°	2182.7	2191.4	2204.3	2232.4	2238.9
22.5°	2128.8	2137.4	2159.0	2184.9	2195.7
25°	2066.1	2083.4	2105.0	2139.5	2146.0
27.5°	2003.5	2018.6	2046.7	2083.4	2092.1
30°	1930.1	1953.9	1988.4	2025.1	2033.8
32.5°	1858.9	1882.6	1923.7	1962.5	1973.3
35°	1785.5	1807.1	1850.2	1895.6	1908.5
37.5°	1701.3	1729.3	1776.8	1822.2	1835.1
40°	1612.8	1647.3	1701.3	1748.8	1763.9
42.5°	1528.6	1565.3	1619.2	1671.0	1688.3
45°	1440.0	1474.6	1539.4	1597.6	1610.6
47.5°	1349.4	1388.2	1457.3	1515.6	1537.2
50°	1258.7	1299.7	1373.1	1433.6	1446.5
52.5°	1168.0	1211.2	1288.9	1353.7	1360.2
55°	1073.0	1120.5	1202.6	1265.2	1278.1
57.5°	986.7	1027.7	1116.2	1181.0	1196.1
60°	891.7	937.0	1032.0	1092.4	1111.9
62.5°	801.0	848.5	947.8	1008.2	1025.5
65°	706.0	760.0	857.1	928.4	945.6
67.5°	623.9	675.8	779.4	848.5	865.8
70°	528.9	587.2	697.4	768.6	785.9
72.5°	446.9	507.4	617.5	686.6	712.5
75°	358.4	427.5	537.6	611.0	628.3
77.5°	272.0	351.9	464.2	520.3	520.3
80°	194.3	278.5	382.1	408.0	412.4
82.5°	127.4	209.4	282.8	280.7	280.7
85°	73.4	136.0	168.4	164.1	164.1
87.5°	28.1	56.1	60.5	60.5	58.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)