

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: P276100

Luminaire Tested: **24CZ2-60HE-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276100  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60HE-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5797.1 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

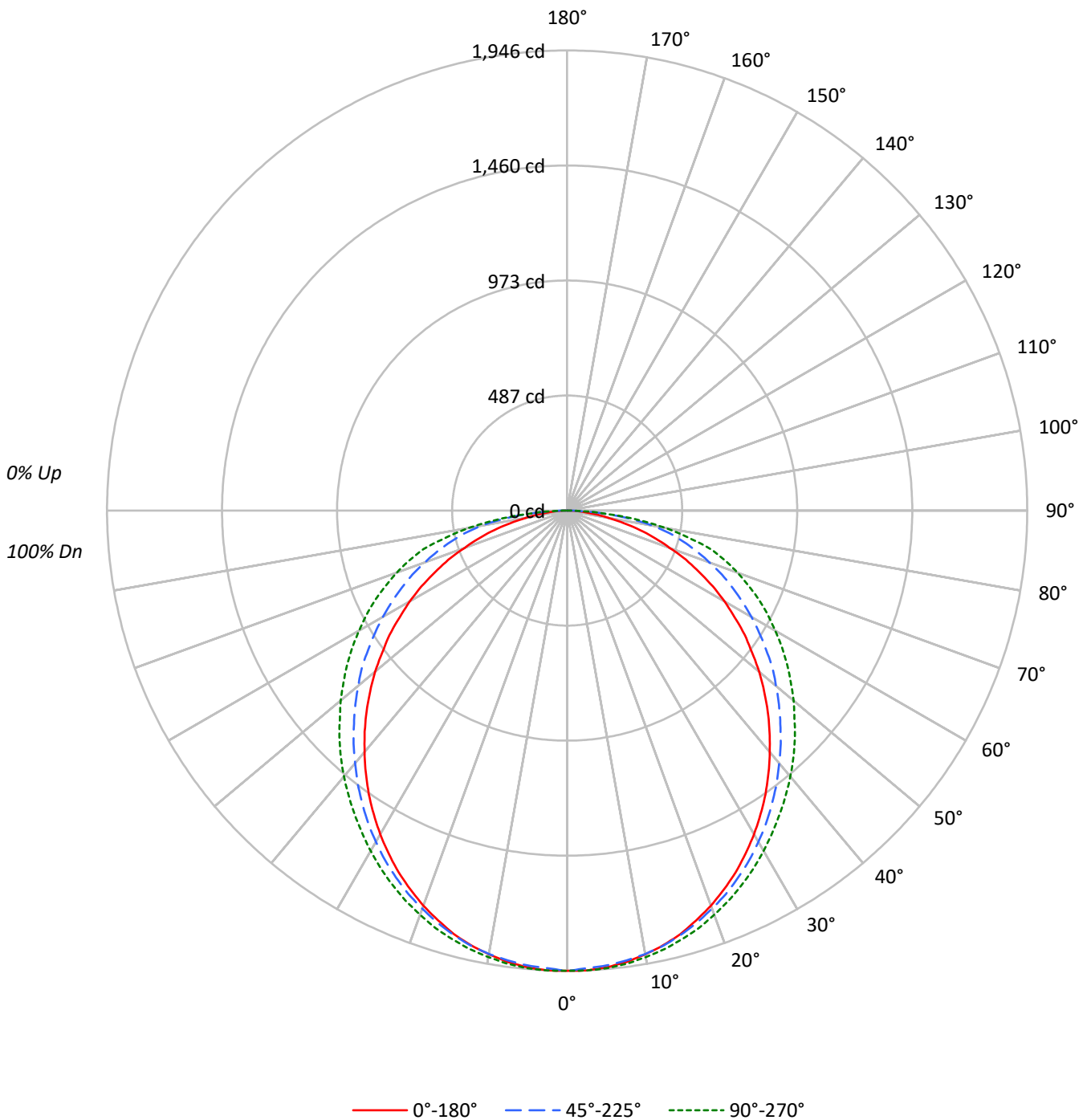
Input Watts (W): 45.105  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2619	2619	2619
5°	2618	2608	2624
10°	2604	2601	2620
15°	2582	2587	2614
20°	2546	2565	2604
25°	2505	2542	2594
30°	2456	2513	2582
35°	2403	2482	2574
40°	2341	2450	2579
45°	2282	2426	2592
50°	2219	2414	2616
55°	2151	2410	2664
60°	2067	2421	2733
65°	1959	2458	2852
70°	1819	2519	3014
75°	1659	2645	3269
80°	1364	2848	3268
85°	1045	2629	2808



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.1	3.2
10°-20°	525.5	9.1
20°-30°	790.8	13.6
30°-40°	947.7	16.3
40°-50°	987.6	17.0
50°-60°	918.9	15.9
60°-70°	756.8	13.1
70°-80°	515.4	8.9
80°-90°	170.2	2.9
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°	1500.4	25.9
0°-40°	2448.2	42.2
0°-60°	4354.7	75.1
0°-90°	5797.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5797.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1939	1939	1931	1940	1942	184
15°	1854	1855	1857	1875	1877	522
25°	1687	1695	1712	1741	1747	777
35°	1463	1480	1511	1552	1567	914
45°	1200	1225	1275	1339	1362	925
55°	917	948	1027	1109	1136	817
65°	615	668	772	863	896	611
75°	319	391	509	600	629	337
85°	68	132	170	182	182	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1946.4	1946.4	1946.4	1946.4	1946.4
2.5°	1946.4	1946.4	1936.7	1946.4	1946.4
5°	1938.6	1938.6	1930.9	1940.5	1942.5
7.5°	1925.1	1927.0	1919.3	1930.9	1932.8
10°	1905.7	1907.7	1903.8	1915.4	1917.3
12.5°	1882.5	1884.4	1884.4	1898.0	1899.9
15°	1853.5	1855.4	1857.4	1874.8	1876.7
17.5°	1816.7	1822.5	1826.4	1847.7	1851.5
20°	1778.0	1783.8	1791.6	1814.8	1818.7
22.5°	1733.5	1741.3	1754.8	1780.0	1785.8
25°	1687.1	1694.8	1712.2	1741.3	1747.1
27.5°	1634.9	1646.5	1667.7	1698.7	1706.4
30°	1580.7	1592.3	1617.4	1650.3	1661.9
32.5°	1522.6	1538.1	1567.1	1603.9	1615.5
35°	1462.7	1480.1	1511.0	1551.7	1567.1
37.5°	1398.8	1418.2	1454.9	1499.4	1518.8
40°	1333.0	1356.3	1395.0	1447.2	1468.5
42.5°	1267.3	1288.5	1336.9	1393.0	1416.2
45°	1199.5	1224.7	1275.0	1338.8	1362.1
47.5°	1129.9	1155.0	1215.0	1282.7	1304.0
50°	1060.2	1085.4	1153.1	1224.7	1249.8
52.5°	984.8	1017.7	1095.1	1166.7	1191.8
55°	917.1	948.0	1027.3	1108.6	1135.7
57.5°	839.7	876.4	963.5	1048.6	1077.7
60°	768.1	806.8	899.7	986.7	1015.7
62.5°	694.6	737.1	835.8	924.8	957.7
65°	615.2	667.5	772.0	862.9	895.8
67.5°	543.7	597.8	708.1	801.0	830.0
70°	462.4	528.2	640.4	733.3	766.2
72.5°	392.8	458.5	576.6	667.5	700.4
75°	319.2	390.8	508.8	599.8	628.8
77.5°	245.7	325.0	443.1	512.7	522.4
80°	176.1	259.3	367.6	408.2	421.8
82.5°	123.8	199.3	270.9	298.0	305.7
85°	67.7	131.6	170.3	181.9	181.9
87.5°	29.0	56.1	67.7	69.7	71.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)