

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: P276336

Luminaire Tested: **24CZ2-50HE-S-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276336  
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: 24CZ2-50HE-S-UNV-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5296.0 lumens  
Efficiency: N/A  
Efficacy: 141.4 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

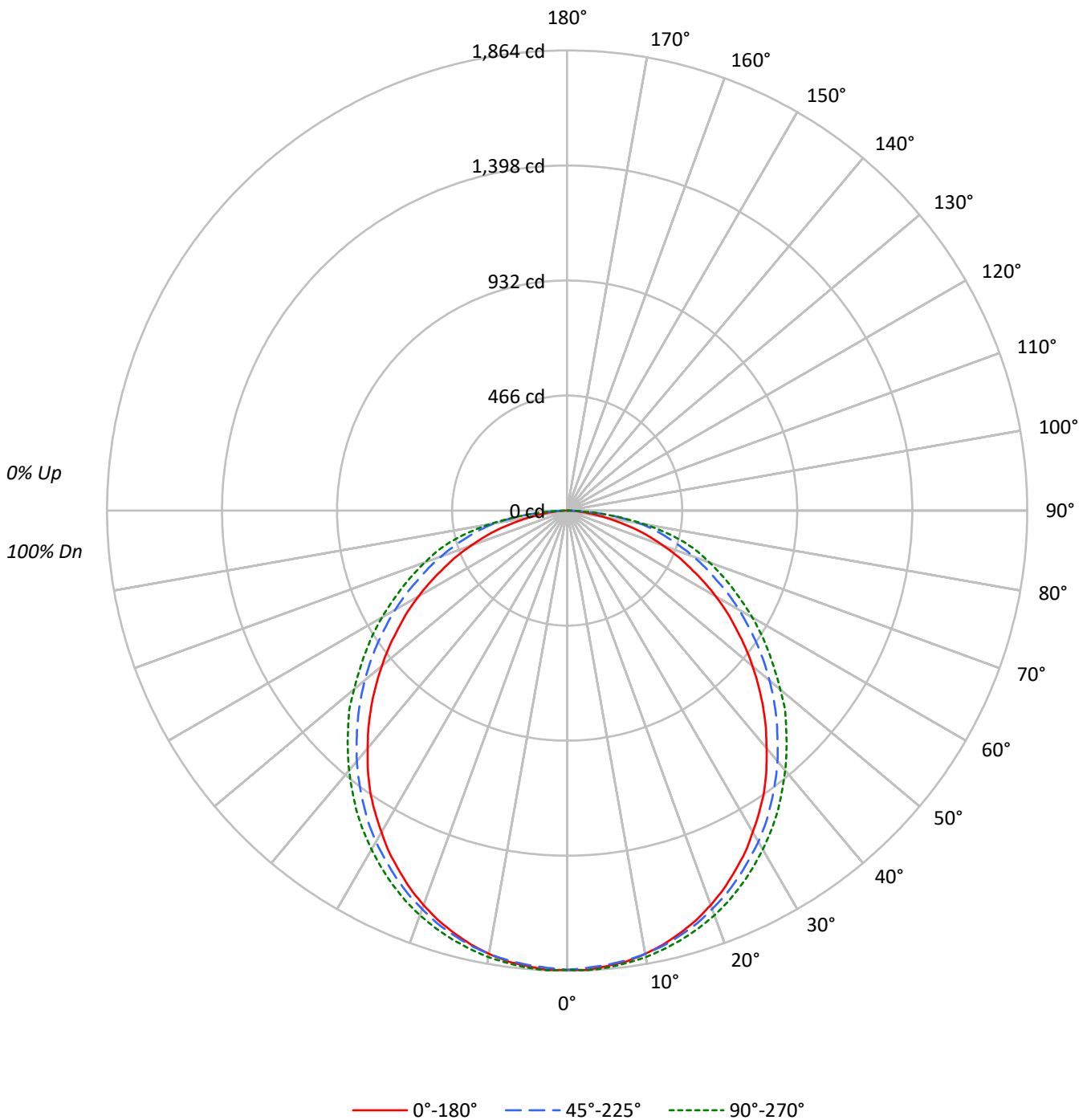
Input Watts (W): 37.461888  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	2503	2503	2503
5°	2501	2495	2511
10°	2491	2491	2510
15°	2467	2479	2505
20°	2435	2459	2498
25°	2390	2435	2482
30°	2337	2407	2462
35°	2285	2368	2443
40°	2207	2328	2414
45°	2135	2282	2388
50°	2053	2240	2359
55°	1961	2198	2336
60°	1870	2164	2331
65°	1751	2126	2346
70°	1621	2138	2409
75°	1451	2178	2545
80°	1173	2307	2490
85°	883	2025	1973



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.1	3.3
10°-20°	503.3	9.5
20°-30°	756.6	14.3
30°-40°	901.2	17.0
40°-50°	922.3	17.4
50°-60°	830.4	15.7
60°-70°	652.1	12.3
70°-80°	423.2	8.0
80°-90°	130.9	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°	1436.0	27.1
0°-40°	2337.1	44.1
0°-60°	4089.8	77.2
0°-90°	5296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5296.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1860	1860	1860	1860	1860	
5°	1852	1856	1847	1857	1859	176
15°	1771	1776	1780	1795	1798	499
25°	1610	1623	1640	1667	1672	742
35°	1391	1408	1442	1477	1487	868
45°	1122	1149	1199	1245	1255	865
55°	836	873	937	986	996	750
65°	550	592	668	723	737	548
75°	279	333	419	476	490	295
85°	57	106	131	128	128	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1860.5	1860.5	1860.5	1860.5	1860.5
2.5°	1862.2	1862.2	1853.8	1862.2	1863.9
5°	1852.1	1855.5	1847.1	1857.2	1858.8
7.5°	1842.0	1842.0	1837.0	1847.1	1848.7
10°	1823.5	1825.2	1823.5	1835.3	1837.0
12.5°	1800.0	1803.3	1805.0	1816.8	1818.5
15°	1771.4	1776.4	1779.8	1794.9	1798.3
17.5°	1739.4	1744.4	1752.9	1769.7	1773.0
20°	1700.7	1707.4	1717.5	1739.4	1744.4
22.5°	1658.7	1665.4	1682.2	1702.4	1710.8
25°	1609.9	1623.3	1640.2	1667.1	1672.1
27.5°	1561.1	1572.9	1594.7	1623.3	1630.1
30°	1503.9	1522.4	1549.3	1577.9	1584.6
32.5°	1448.4	1466.9	1498.8	1529.1	1537.5
35°	1391.2	1408.0	1441.7	1477.0	1487.1
37.5°	1325.6	1347.4	1384.5	1419.8	1429.9
40°	1256.6	1283.5	1325.6	1362.6	1374.4
42.5°	1191.0	1219.6	1261.7	1302.0	1315.5
45°	1122.0	1148.9	1199.4	1244.8	1254.9
47.5°	1051.4	1081.7	1135.5	1180.9	1197.7
50°	980.7	1012.7	1069.9	1117.0	1127.1
52.5°	910.1	943.7	1004.3	1054.7	1059.8
55°	836.1	873.1	937.0	985.8	995.9
57.5°	768.8	800.7	869.7	920.2	931.9
60°	694.8	730.1	804.1	851.2	866.3
62.5°	624.1	661.1	738.5	785.6	799.0
65°	550.1	592.1	667.8	723.3	736.8
67.5°	486.2	526.5	607.3	661.1	674.6
70°	412.1	457.6	543.4	598.9	612.3
72.5°	348.2	395.3	481.1	534.9	555.1
75°	279.2	333.1	418.9	476.1	489.5
77.5°	212.0	274.2	361.7	405.4	405.4
80°	151.4	217.0	297.8	317.9	321.3
82.5°	99.3	163.2	220.4	218.7	218.7
85°	57.2	106.0	131.2	127.8	127.8
87.5°	21.9	43.7	47.1	47.1	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)