

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: P276476

Luminaire Tested: **24CZ2-35HE-S-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276476  
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: 24CZ2-35HE-S-UNV-L82765-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: 3601.2 lumens  
Efficiency: N/A  
Efficacy: 145.6 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

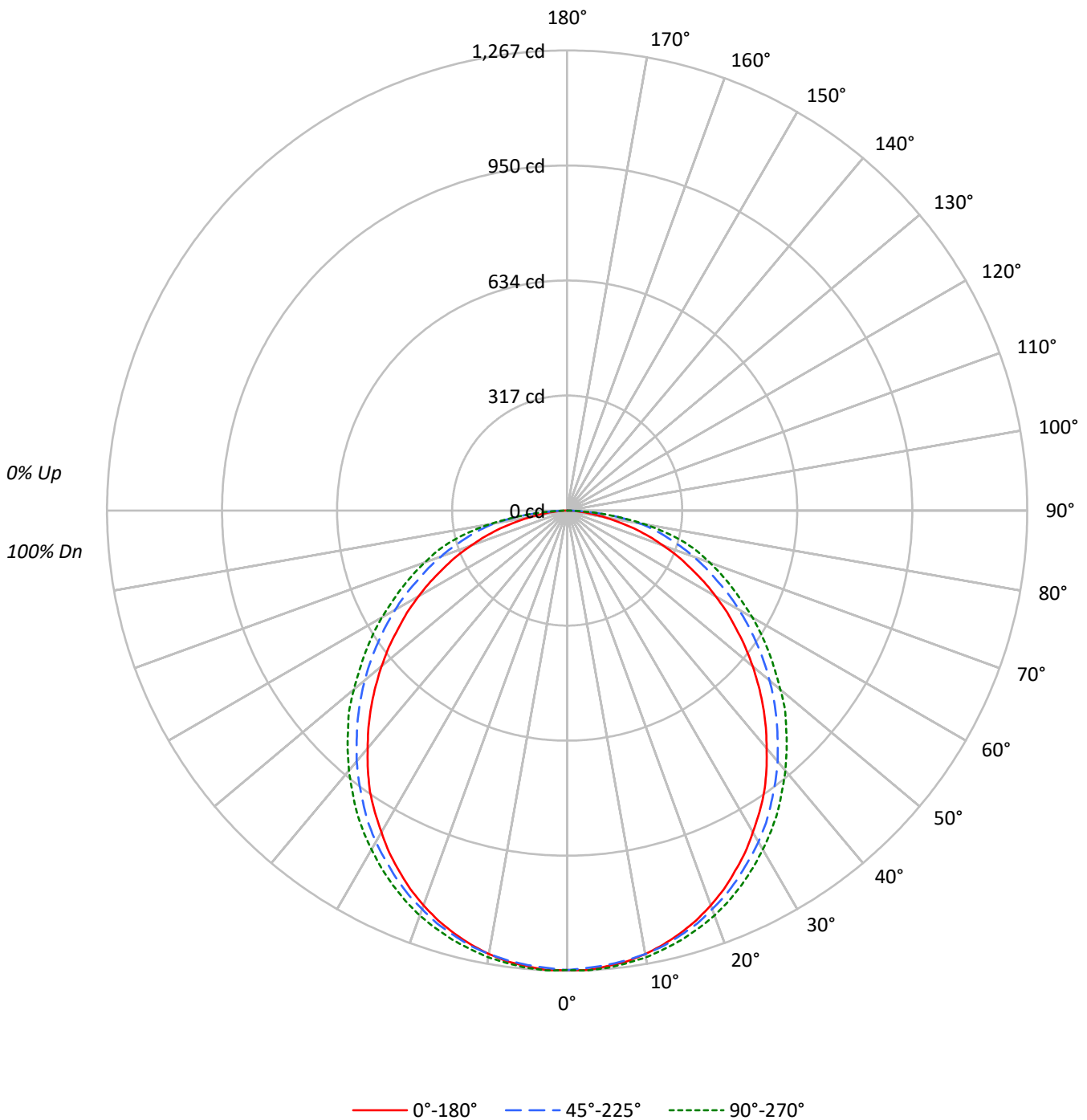
Input Watts (W): 24.738  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1702	1702	1702
5°	1701	1696	1707
10°	1694	1694	1707
15°	1678	1686	1703
20°	1656	1672	1698
25°	1625	1656	1688
30°	1589	1637	1674
35°	1554	1610	1661
40°	1501	1583	1642
45°	1452	1552	1624
50°	1396	1523	1604
55°	1334	1495	1589
60°	1271	1471	1585
65°	1191	1446	1595
70°	1103	1454	1638
75°	987	1481	1731
80°	797	1569	1693
85°	601	1377	1342



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.8	3.3
10°-20°	342.2	9.5
20°-30°	514.4	14.3
30°-40°	612.8	17.0
40°-50°	627.2	17.4
50°-60°	564.6	15.7
60°-70°	443.4	12.3
70°-80°	287.8	8.0
80°-90°	89.0	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°	976.4	27.1
0°-40°	1589.2	44.1
0°-60°	2781.0	77.2
0°-90°	3601.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3601.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1265	1265	1265	1265	1265	
5°	1259	1262	1256	1263	1264	120
15°	1204	1208	1210	1220	1223	340
25°	1095	1104	1115	1134	1137	504
35°	946	957	980	1004	1011	590
45°	763	781	816	846	853	588
55°	568	594	637	670	677	510
65°	374	403	454	492	501	372
75°	190	226	285	324	333	201
85°	39	72	89	87	87	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1265.1	1265.1	1265.1	1265.1	1265.1
2.5°	1266.3	1266.3	1260.6	1266.3	1267.4
5°	1259.4	1261.7	1256.0	1262.9	1264.0
7.5°	1252.6	1252.6	1249.1	1256.0	1257.1
10°	1240.0	1241.1	1240.0	1248.0	1249.1
12.5°	1224.0	1226.2	1227.4	1235.4	1236.5
15°	1204.5	1207.9	1210.2	1220.5	1222.8
17.5°	1182.8	1186.2	1191.9	1203.4	1205.7
20°	1156.5	1161.0	1167.9	1182.8	1186.2
22.5°	1127.9	1132.4	1143.9	1157.6	1163.3
25°	1094.7	1103.9	1115.3	1133.6	1137.0
27.5°	1061.5	1069.5	1084.4	1103.9	1108.4
30°	1022.6	1035.2	1053.5	1073.0	1077.5
32.5°	984.9	997.5	1019.2	1039.8	1045.5
35°	946.0	957.4	980.3	1004.3	1011.2
37.5°	901.4	916.3	941.4	965.4	972.3
40°	854.5	872.8	901.4	926.5	934.6
42.5°	809.9	829.3	857.9	885.4	894.5
45°	763.0	781.3	815.6	846.5	853.3
47.5°	714.9	735.5	772.1	803.0	814.4
50°	666.9	688.6	727.5	759.5	766.4
52.5°	618.8	641.7	682.9	717.2	720.6
55°	568.5	593.7	637.1	670.3	677.2
57.5°	522.8	544.5	591.4	625.7	633.7
60°	472.4	496.4	546.8	578.8	589.1
62.5°	424.4	449.5	502.2	534.2	543.3
65°	374.1	402.6	454.1	491.9	501.0
67.5°	330.6	358.0	412.9	449.5	458.7
70°	280.3	311.1	369.5	407.2	416.4
72.5°	236.8	268.8	327.2	363.8	377.5
75°	189.9	226.5	284.8	323.7	332.9
77.5°	144.1	186.5	245.9	275.7	275.7
80°	102.9	147.6	202.5	216.2	218.5
82.5°	67.5	111.0	149.8	148.7	148.7
85°	38.9	72.1	89.2	86.9	86.9
87.5°	14.9	29.7	32.0	32.0	30.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)