

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: P276617

Luminaire Tested: **24CZ2-40HE-S-UNV-L92765-W2A1-U-3500K**

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: P276617  
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: 24CZ2-40HE-S-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3464.1 lumens  
Efficiency: N/A  
Efficacy: 122.1 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

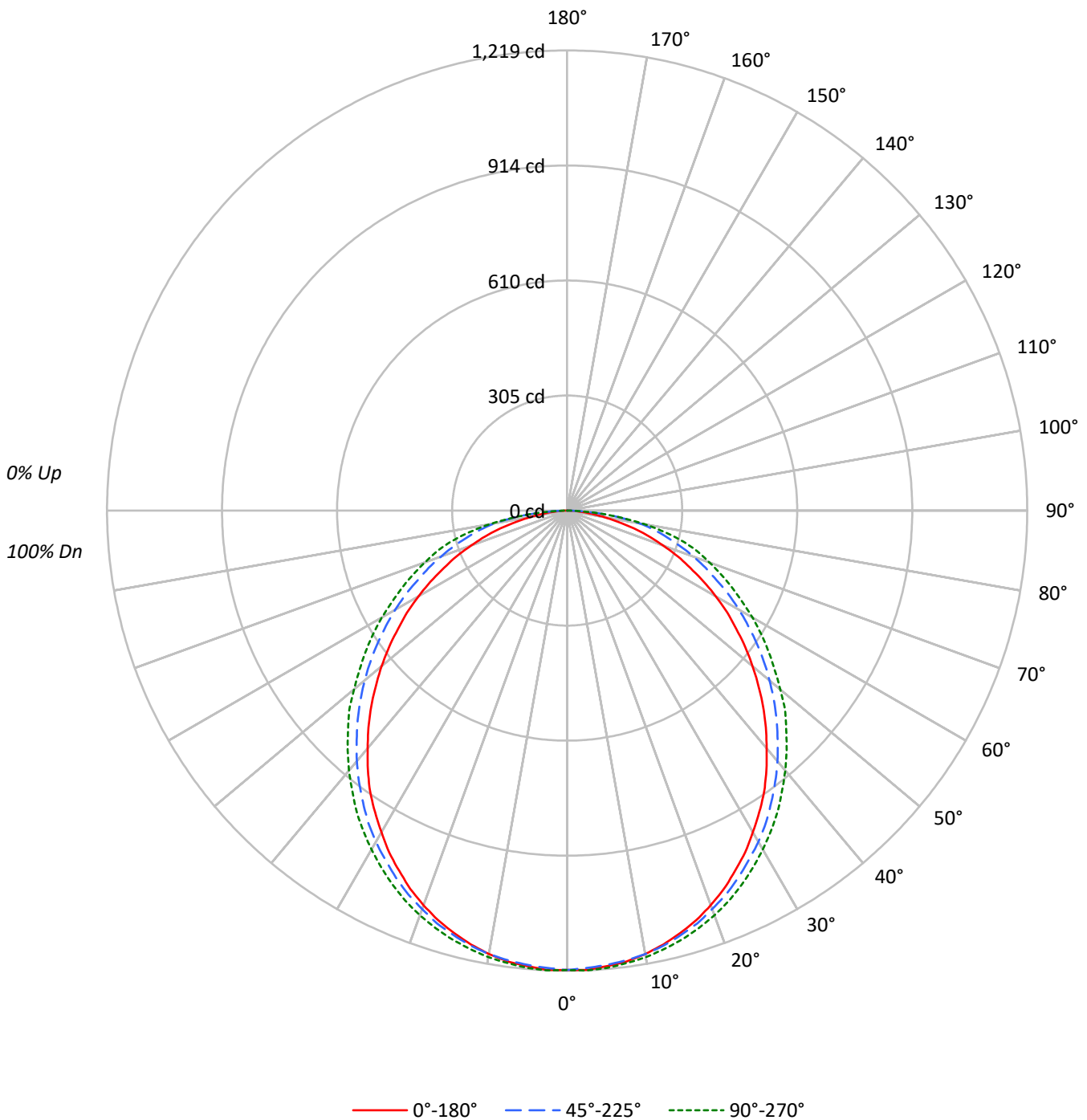
Input Watts (W): 28.365  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1637	1637	1637
5°	1636	1632	1642
10°	1630	1630	1642
15°	1614	1622	1638
20°	1593	1609	1634
25°	1563	1593	1624
30°	1528	1574	1610
35°	1495	1549	1598
40°	1444	1523	1579
45°	1396	1493	1562
50°	1343	1465	1543
55°	1283	1438	1528
60°	1223	1415	1525
65°	1145	1391	1534
70°	1061	1398	1576
75°	950	1424	1665
80°	767	1509	1629
85°	577	1325	1291



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.2	3.3
10°-20°	329.2	9.5
20°-30°	494.8	14.3
30°-40°	589.5	17.0
40°-50°	603.3	17.4
50°-60°	543.1	15.7
60°-70°	426.5	12.3
70°-80°	276.8	8.0
80°-90°	85.6	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°	939.2	27.1
0°-40°	1528.7	44.1
0°-60°	2675.1	77.2
0°-90°	3464.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3464.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1211	1214	1208	1215	1216	115
15°	1159	1162	1164	1174	1176	327
25°	1053	1062	1073	1090	1094	485
35°	910	921	943	966	973	568
45°	734	752	784	814	821	566
55°	547	571	613	645	651	490
65°	360	387	437	473	482	358
75°	183	218	274	311	320	193
85°	37	69	86	84	84	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1217.0	1217.0	1217.0	1217.0	1217.0
2.5°	1218.1	1218.1	1212.5	1218.1	1219.2
5°	1211.4	1213.6	1208.1	1214.7	1215.9
7.5°	1204.8	1204.8	1201.5	1208.1	1209.2
10°	1192.7	1193.8	1192.7	1200.4	1201.5
12.5°	1177.3	1179.5	1180.6	1188.3	1189.4
15°	1158.6	1161.9	1164.1	1174.0	1176.2
17.5°	1137.7	1141.0	1146.5	1157.5	1159.7
20°	1112.4	1116.8	1123.4	1137.7	1141.0
22.5°	1084.9	1089.3	1100.3	1113.5	1119.0
25°	1053.0	1061.8	1072.8	1090.4	1093.7
27.5°	1021.1	1028.8	1043.1	1061.8	1066.2
30°	983.7	995.8	1013.4	1032.1	1036.5
32.5°	947.4	959.5	980.4	1000.2	1005.7
35°	910.0	921.0	943.0	966.1	972.7
37.5°	867.0	881.4	905.6	928.7	935.3
40°	821.9	839.5	867.0	891.3	899.0
42.5°	779.0	797.7	825.2	851.6	860.4
45°	733.9	751.5	784.5	814.2	820.8
47.5°	687.7	707.5	742.7	772.4	783.4
50°	641.5	662.4	699.8	730.6	737.2
52.5°	595.3	617.3	656.9	689.9	693.2
55°	546.9	571.1	612.9	644.8	651.4
57.5°	502.8	523.8	568.9	601.9	609.6
60°	454.4	477.5	526.0	556.8	566.7
62.5°	408.2	432.4	483.0	513.8	522.7
65°	359.8	387.3	436.8	473.1	481.9
67.5°	318.0	344.4	397.2	432.4	441.2
70°	269.6	299.3	355.4	391.7	400.5
72.5°	227.8	258.6	314.7	349.9	363.1
75°	182.7	217.9	274.0	311.4	320.2
77.5°	138.6	179.4	236.6	265.2	265.2
80°	99.0	141.9	194.8	208.0	210.2
82.5°	64.9	106.7	144.1	143.0	143.0
85°	37.4	69.3	85.8	83.6	83.6
87.5°	14.3	28.6	30.8	30.8	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)