

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: P276484

Luminaire Tested: **24CZ2-40HE-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276484  
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-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4113.1 lumens  
Efficiency: N/A  
Efficacy: 142.7 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

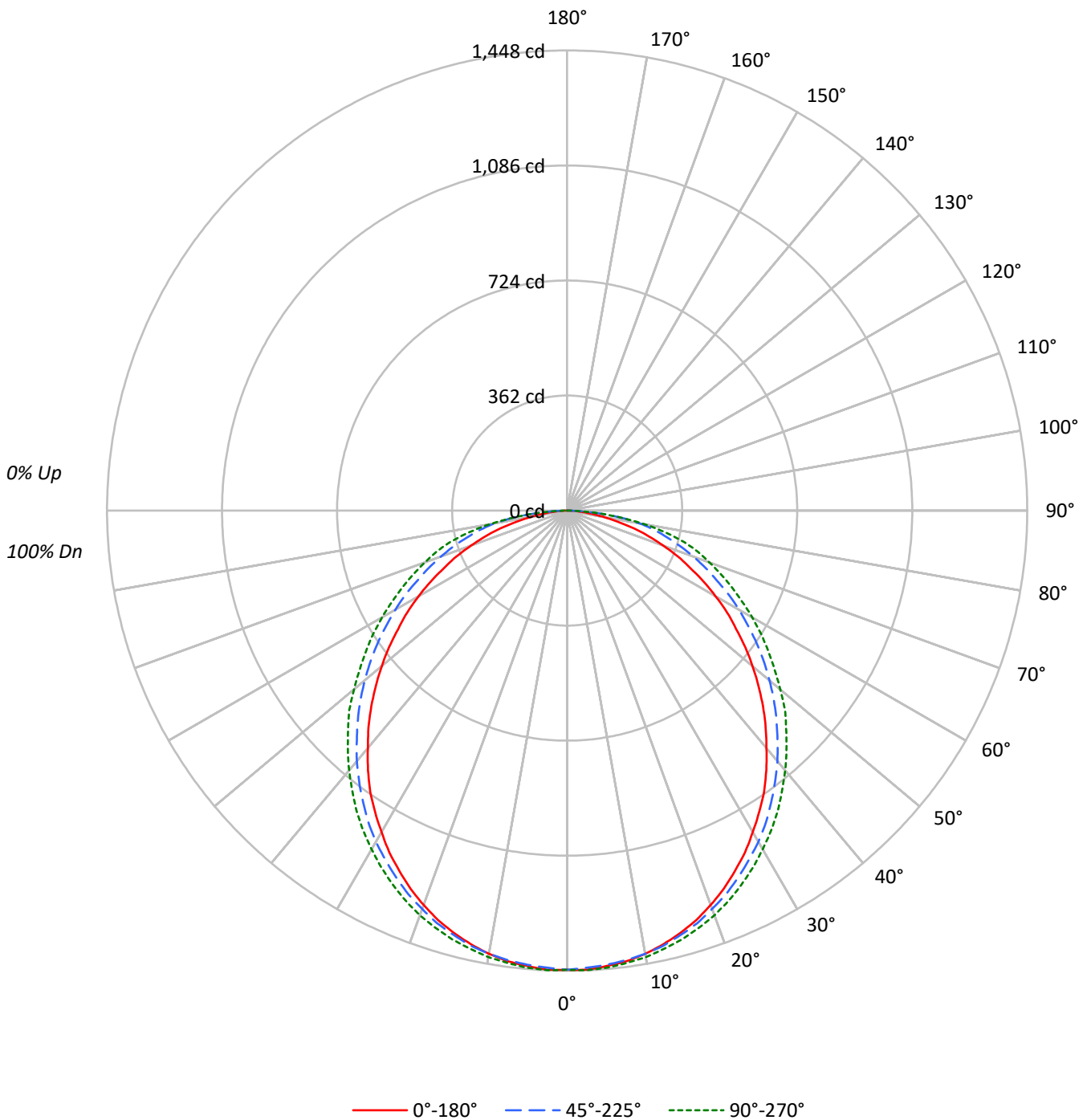
Input Watts (W): 28.83  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1944	1944	1944
5°	1943	1937	1950
10°	1935	1935	1949
15°	1916	1925	1945
20°	1891	1910	1940
25°	1856	1891	1928
30°	1815	1869	1912
35°	1775	1839	1897
40°	1714	1808	1875
45°	1658	1772	1854
50°	1594	1739	1832
55°	1523	1707	1814
60°	1452	1681	1810
65°	1360	1651	1822
70°	1259	1660	1871
75°	1128	1691	1976
80°	911	1791	1933
85°	685	1573	1533



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.8	3.3
10°-20°	390.9	9.5
20°-30°	587.6	14.3
30°-40°	699.9	17.0
40°-50°	716.3	17.4
50°-60°	644.9	15.7
60°-70°	506.4	12.3
70°-80°	328.7	8.0
80°-90°	101.6	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°	1115.3	27.1
0°-40°	1815.2	44.1
0°-60°	3176.4	77.2
0°-90°	4113.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4113.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1438	1441	1434	1442	1444	137
15°	1376	1380	1382	1394	1397	388
25°	1250	1261	1274	1295	1299	576
35°	1080	1094	1120	1147	1155	674
45°	871	892	932	967	975	672
55°	649	678	728	766	773	582
65°	427	460	519	562	572	425
75°	217	259	325	370	380	229
85°	44	82	102	99	99	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1445.0	1445.0	1445.0	1445.0	1445.0
2.5°	1446.3	1446.3	1439.8	1446.3	1447.6
5°	1438.4	1441.1	1434.5	1442.4	1443.7
7.5°	1430.6	1430.6	1426.7	1434.5	1435.8
10°	1416.2	1417.5	1416.2	1425.4	1426.7
12.5°	1397.9	1400.6	1401.9	1411.0	1412.3
15°	1375.7	1379.7	1382.3	1394.0	1396.6
17.5°	1350.9	1354.8	1361.4	1374.4	1377.0
20°	1320.9	1326.1	1333.9	1350.9	1354.8
22.5°	1288.2	1293.4	1306.5	1322.2	1328.7
25°	1250.3	1260.8	1273.8	1294.7	1298.6
27.5°	1212.4	1221.6	1238.6	1260.8	1266.0
30°	1168.0	1182.4	1203.3	1225.5	1230.7
32.5°	1124.9	1139.3	1164.1	1187.6	1194.1
35°	1080.5	1093.5	1119.7	1147.1	1154.9
37.5°	1029.5	1046.5	1075.2	1102.7	1110.5
40°	975.9	996.9	1029.5	1058.3	1067.4
42.5°	925.0	947.2	979.9	1011.2	1021.7
45°	871.4	892.3	931.5	966.8	974.6
47.5°	816.6	840.1	881.9	917.2	930.2
50°	761.7	786.5	830.9	867.5	875.3
52.5°	706.8	732.9	780.0	819.2	823.1
55°	649.3	678.1	727.7	765.6	773.4
57.5°	597.1	621.9	675.5	714.6	723.8
60°	539.6	567.0	624.5	661.1	672.8
62.5°	484.7	513.4	573.5	610.1	620.6
65°	427.2	459.9	518.7	561.8	572.2
67.5°	377.6	408.9	471.6	513.4	523.9
70°	320.1	355.4	422.0	465.1	475.6
72.5°	270.4	307.0	373.7	415.5	431.1
75°	216.9	258.7	325.3	369.7	380.2
77.5°	164.6	213.0	280.9	314.9	314.9
80°	117.6	168.5	231.2	246.9	249.5
82.5°	77.1	126.7	171.1	169.8	169.8
85°	44.4	82.3	101.9	99.3	99.3
87.5°	17.0	34.0	36.6	36.6	35.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)