

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: P261033

Luminaire Tested: **24CZ-LD5-40SE-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261033  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-40SE-S-UNV-L83050-W2A1-U-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4129.0 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

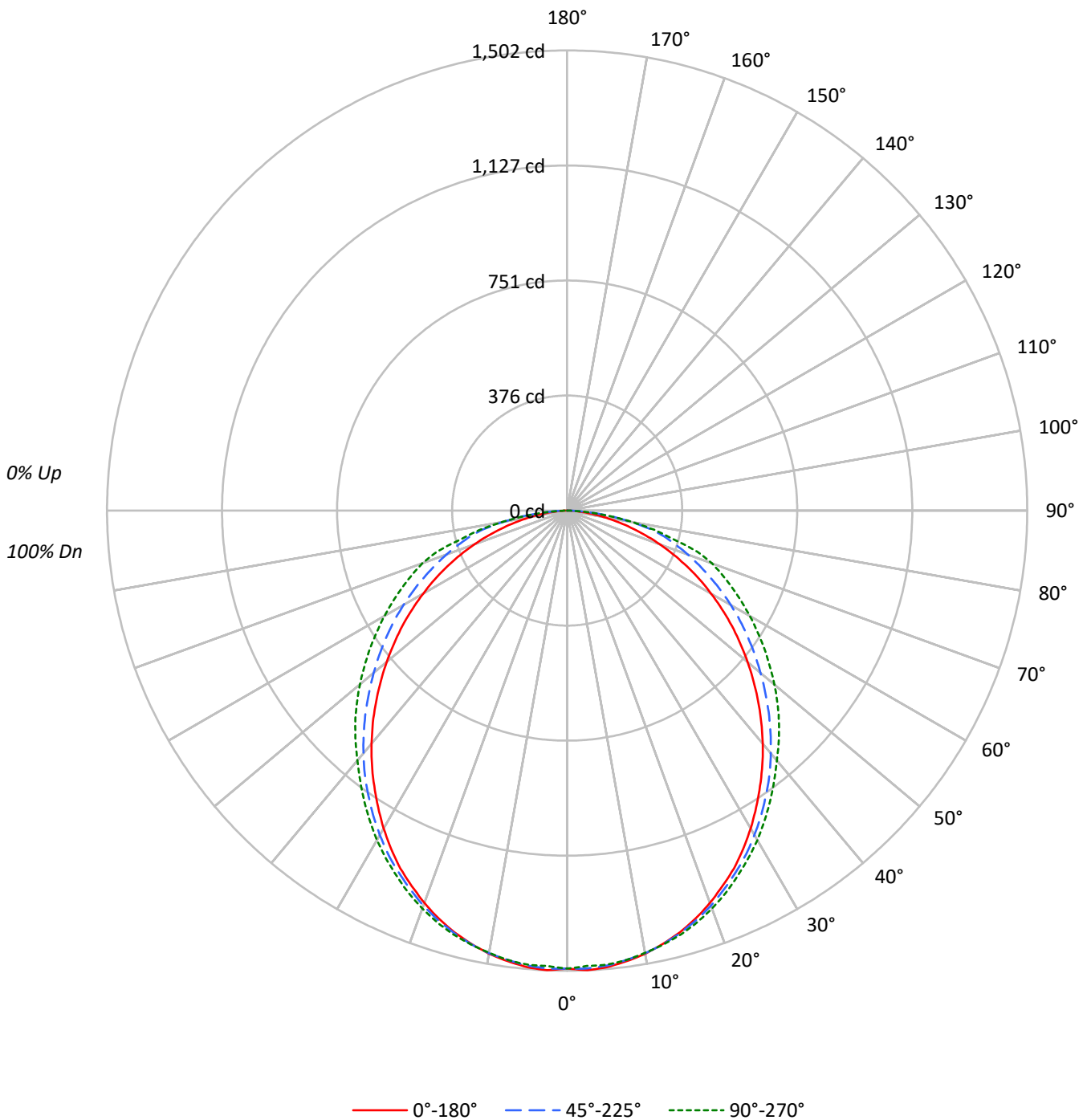
Input Watts (W): 30.411  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2011	2011	2011
5°	2021	2013	2010
10°	2007	2005	2003
15°	1985	1988	1996
20°	1951	1965	1979
25°	1913	1934	1954
30°	1861	1900	1930
35°	1803	1860	1898
40°	1745	1817	1870
45°	1678	1770	1861
50°	1611	1725	1849
55°	1540	1689	1844
60°	1460	1660	1852
65°	1373	1640	1890
70°	1265	1648	1978
75°	1121	1707	1843
80°	937	1618	1660
85°	699	1294	1187



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.3	3.4
10°-20°	401.9	9.7
20°-30°	599.0	14.5
30°-40°	705.1	17.1
40°-50°	716.5	17.4
50°-60°	644.2	15.6
60°-70°	508.9	12.3
70°-80°	322.9	7.8
80°-90°	89.1	2.2
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°	1142.2	27.7
0°-40°	1847.3	44.7
0°-60°	3208.1	77.7
0°-90°	4129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4129.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1496	1484	1491	1488	1488	142
15°	1425	1418	1428	1432	1433	401
25°	1289	1287	1302	1311	1316	593
35°	1098	1105	1132	1144	1155	687
45°	882	894	930	958	978	681
55°	657	673	720	767	786	586
65°	431	453	515	572	594	427
75°	216	253	328	357	354	230
85°	45	78	84	77	77	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1494.8	1494.8	1494.8	1494.8	1494.8
2.5°	1501.6	1490.7	1496.1	1493.4	1487.9
5°	1496.1	1483.8	1490.7	1487.9	1487.9
7.5°	1483.8	1474.2	1479.7	1478.3	1479.7
10°	1468.7	1459.1	1467.3	1467.3	1465.9
12.5°	1448.1	1439.8	1449.4	1449.4	1450.8
15°	1424.7	1417.8	1427.5	1431.6	1432.9
17.5°	1395.9	1389.0	1401.4	1405.5	1409.6
20°	1362.9	1360.1	1372.5	1376.6	1382.1
22.5°	1325.8	1325.8	1338.2	1343.6	1351.9
25°	1288.7	1287.3	1302.4	1310.7	1316.2
27.5°	1244.7	1246.1	1265.3	1273.6	1280.4
30°	1198.0	1200.8	1222.7	1232.4	1242.0
32.5°	1148.6	1154.1	1178.8	1189.8	1199.4
35°	1097.7	1104.6	1132.1	1144.4	1155.4
37.5°	1046.9	1056.5	1085.4	1097.7	1110.1
40°	993.3	1001.6	1034.5	1049.6	1064.8
42.5°	938.4	949.3	982.3	1004.3	1022.2
45°	882.0	894.4	930.1	957.6	978.2
47.5°	825.7	842.2	876.5	913.6	931.5
50°	769.4	785.9	824.3	865.5	883.4
52.5°	711.7	728.2	772.1	814.7	833.9
55°	656.7	673.2	719.9	766.6	785.9
57.5°	599.0	616.9	669.1	717.2	736.4
60°	542.7	560.5	616.9	667.7	688.3
62.5°	487.7	507.0	566.0	619.6	640.2
65°	431.4	453.4	515.2	571.5	593.5
67.5°	376.4	401.2	465.7	524.8	548.2
70°	321.5	350.3	419.0	479.5	502.8
72.5°	267.9	299.5	372.3	432.8	445.1
75°	215.7	252.8	328.4	357.2	354.5
77.5°	166.2	207.5	278.9	284.4	292.6
80°	120.9	166.2	208.8	219.8	214.3
82.5°	79.7	125.0	149.8	144.3	142.9
85°	45.3	78.3	83.8	76.9	76.9
87.5°	19.2	31.6	27.5	20.6	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)