

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: P276333

Luminaire Tested: **24CZ2-50HE-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276333  
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-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4996.0 lumens  
Efficiency: N/A  
Efficacy: 139.9 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

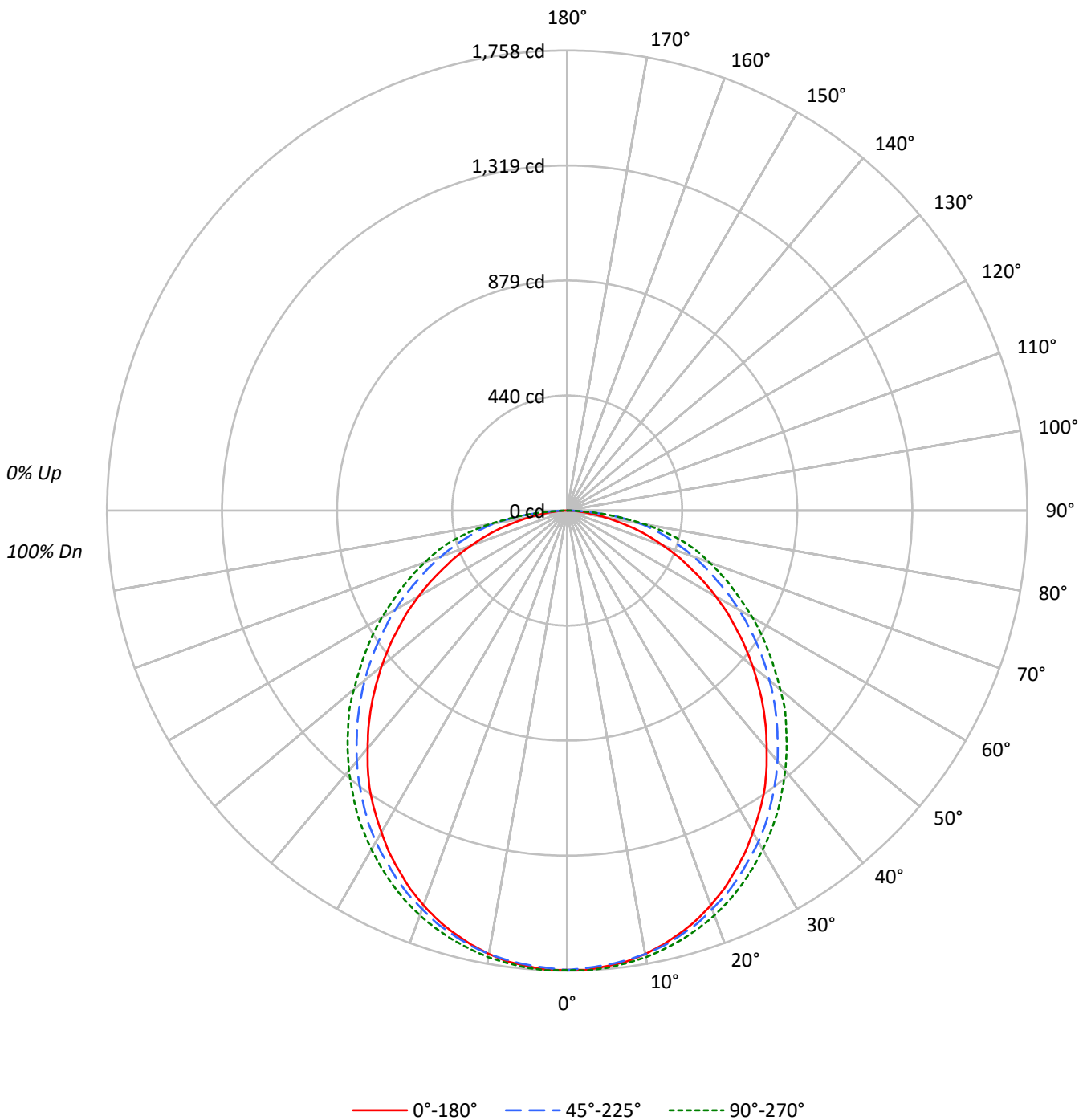
Input Watts (W): 35.712  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2361	2361	2361
5°	2360	2353	2368
10°	2350	2350	2368
15°	2328	2339	2363
20°	2297	2320	2356
25°	2255	2297	2342
30°	2204	2271	2323
35°	2156	2234	2304
40°	2082	2196	2277
45°	2014	2153	2253
50°	1937	2113	2226
55°	1850	2073	2204
60°	1764	2041	2199
65°	1652	2006	2213
70°	1530	2017	2272
75°	1369	2054	2401
80°	1106	2177	2349
85°	834	1911	1862



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.2	3.3
10°-20°	474.8	9.5
20°-30°	713.7	14.3
30°-40°	850.1	17.0
40°-50°	870.1	17.4
50°-60°	783.3	15.7
60°-70°	615.2	12.3
70°-80°	399.2	8.0
80°-90°	123.5	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°	1354.6	27.1
0°-40°	2204.7	44.1
0°-60°	3858.1	77.2
0°-90°	4996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4996.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1755	1755	1755	1755	1755	
5°	1747	1750	1742	1752	1754	166
15°	1671	1676	1679	1693	1696	471
25°	1519	1531	1547	1573	1577	700
35°	1312	1328	1360	1393	1403	819
45°	1058	1084	1132	1174	1184	816
55°	789	824	884	930	940	707
65°	519	559	630	682	695	517
75°	263	314	395	449	462	279
85°	54	100	124	121	121	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1755.1	1755.1	1755.1	1755.1	1755.1
2.5°	1756.7	1756.7	1748.8	1756.7	1758.3
5°	1747.2	1750.4	1742.4	1752.0	1753.5
7.5°	1737.7	1737.7	1732.9	1742.4	1744.0
10°	1720.2	1721.8	1720.2	1731.3	1732.9
12.5°	1698.0	1701.2	1702.8	1713.9	1715.5
15°	1671.0	1675.8	1679.0	1693.2	1696.4
17.5°	1640.9	1645.6	1653.6	1669.4	1672.6
20°	1604.4	1610.7	1620.2	1640.9	1645.6
22.5°	1564.7	1571.0	1586.9	1606.0	1613.9
25°	1518.7	1531.4	1547.2	1572.6	1577.4
27.5°	1472.7	1483.8	1504.4	1531.4	1537.7
30°	1418.7	1436.2	1461.5	1488.5	1494.9
32.5°	1366.3	1383.8	1413.9	1442.5	1450.4
35°	1312.4	1328.2	1360.0	1393.3	1402.8
37.5°	1250.5	1271.1	1306.0	1339.4	1348.9
40°	1185.4	1210.8	1250.5	1285.4	1296.5
42.5°	1123.5	1150.5	1190.2	1228.3	1241.0
45°	1058.5	1083.9	1131.5	1174.3	1183.8
47.5°	991.8	1020.4	1071.2	1114.0	1129.9
50°	925.2	955.3	1009.3	1053.7	1063.2
52.5°	858.5	890.3	947.4	995.0	999.8
55°	788.7	823.6	883.9	929.9	939.5
57.5°	725.2	755.4	820.4	868.0	879.2
60°	655.4	688.7	758.5	803.0	817.3
62.5°	588.7	623.7	696.7	741.1	753.8
65°	518.9	558.6	630.0	682.4	695.1
67.5°	458.6	496.7	572.9	623.7	636.4
70°	388.8	431.6	512.6	564.9	577.6
72.5°	328.5	372.9	453.9	504.6	523.7
75°	263.4	314.2	395.1	449.1	461.8
77.5°	200.0	258.7	341.2	382.4	382.4
80°	142.8	204.7	280.9	299.9	303.1
82.5°	93.6	153.9	207.9	206.3	206.3
85°	54.0	100.0	123.8	120.6	120.6
87.5°	20.6	41.3	44.4	44.4	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)