

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: P276523

Luminaire Tested: **24CZ2-60HE-S-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276523  
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: 24CZ2-60HE-S-UNV-L82765-W2A1-U-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6251.2 lumens  
Efficiency: N/A  
Efficacy: 137.5 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

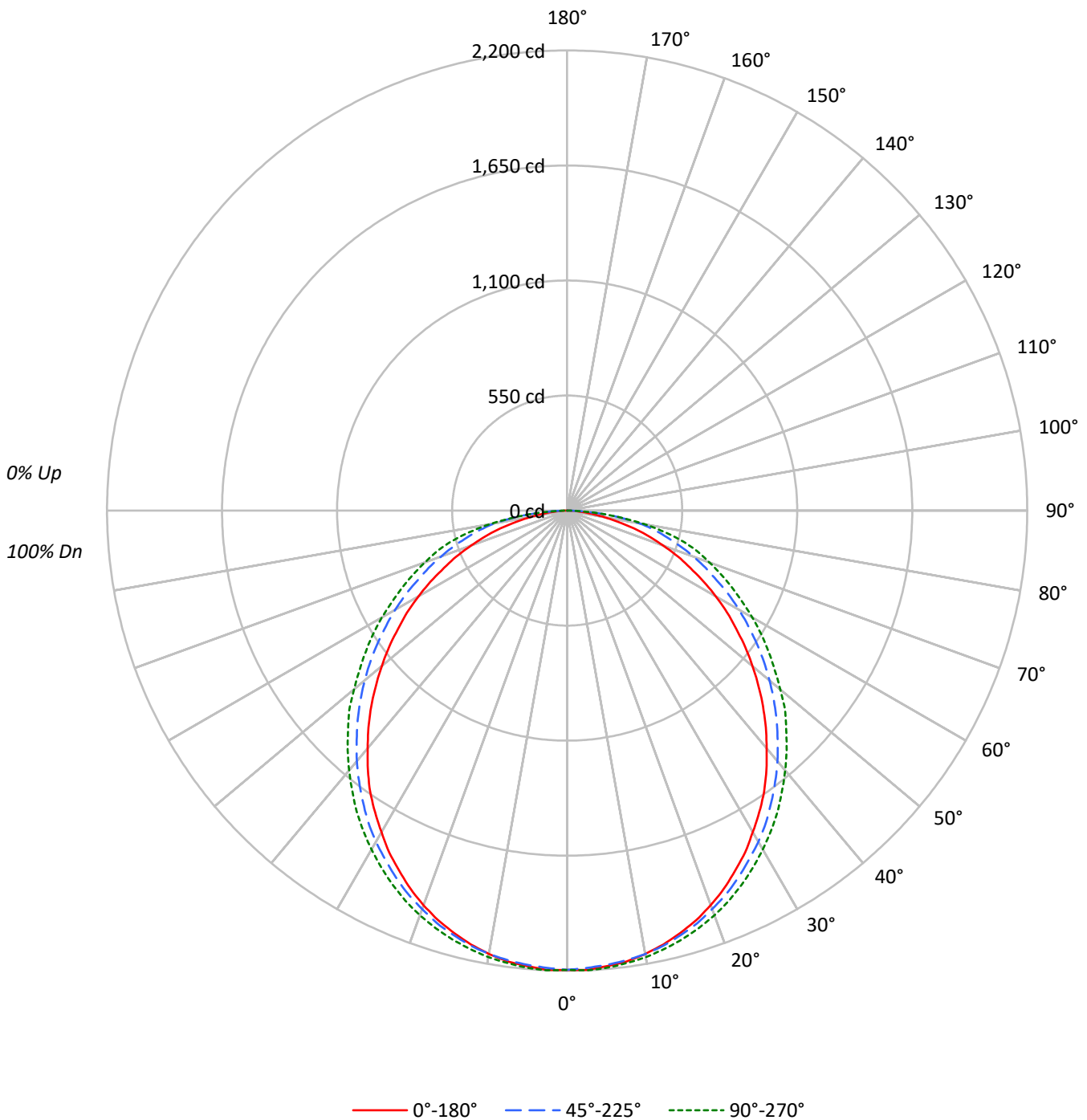
Input Watts (W): 45.477  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2955	2955	2955
5°	2953	2945	2963
10°	2941	2941	2962
15°	2913	2926	2957
20°	2874	2903	2948
25°	2821	2874	2930
30°	2758	2841	2906
35°	2697	2795	2883
40°	2605	2748	2849
45°	2520	2694	2819
50°	2423	2644	2785
55°	2315	2594	2757
60°	2207	2554	2752
65°	2067	2510	2769
70°	1914	2523	2843
75°	1713	2570	3004
80°	1385	2724	2939
85°	1042	2391	2330



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.9	3.3
10°-20°	594.1	9.5
20°-30°	893.0	14.3
30°-40°	1063.7	17.0
40°-50°	1088.7	17.4
50°-60°	980.1	15.7
60°-70°	769.7	12.3
70°-80°	499.6	8.0
80°-90°	154.5	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°	1695.0	27.1
0°-40°	2758.7	44.1
0°-60°	4827.5	77.2
0°-90°	6251.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6251.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2196	2196	2196	2196	2196	
5°	2186	2190	2180	2192	2194	208
15°	2091	2097	2101	2119	2123	590
25°	1900	1916	1936	1968	1974	875
35°	1642	1662	1702	1743	1755	1024
45°	1324	1356	1416	1469	1481	1021
55°	987	1030	1106	1164	1176	885
65°	649	699	788	854	870	646
75°	330	393	494	562	578	349
85°	68	125	155	151	151	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2196.1	2196.1	2196.1	2196.1	2196.1
2.5°	2198.1	2198.1	2188.2	2198.1	2200.1
5°	2186.2	2190.1	2180.2	2192.1	2194.1
7.5°	2174.3	2174.3	2168.3	2180.2	2182.2
10°	2152.4	2154.4	2152.4	2166.3	2168.3
12.5°	2124.6	2128.6	2130.6	2144.5	2146.5
15°	2090.9	2096.8	2100.8	2118.7	2122.6
17.5°	2053.1	2059.1	2069.0	2088.9	2092.8
20°	2007.5	2015.4	2027.3	2053.1	2059.1
22.5°	1957.8	1965.8	1985.6	2009.4	2019.4
25°	1900.2	1916.1	1936.0	1967.8	1973.7
27.5°	1842.7	1856.6	1882.4	1916.1	1924.1
30°	1775.1	1797.0	1828.8	1862.5	1870.5
32.5°	1709.6	1731.5	1769.2	1804.9	1814.9
35°	1642.1	1662.0	1701.7	1743.4	1755.3
37.5°	1564.7	1590.5	1634.2	1675.9	1687.8
40°	1483.3	1515.0	1564.7	1608.4	1622.3
42.5°	1405.8	1439.6	1489.2	1536.9	1552.8
45°	1324.4	1356.2	1415.7	1469.4	1481.3
47.5°	1241.0	1276.8	1340.3	1393.9	1413.8
50°	1157.6	1195.3	1262.9	1318.5	1330.4
52.5°	1074.2	1113.9	1185.4	1245.0	1250.9
55°	986.9	1030.5	1106.0	1163.6	1175.5
57.5°	907.4	945.2	1026.6	1086.1	1100.0
60°	820.1	861.8	949.1	1004.7	1022.6
62.5°	736.7	780.3	871.7	927.3	943.2
65°	649.3	698.9	788.3	853.8	869.7
67.5°	573.8	621.5	716.8	780.3	796.2
70°	486.5	540.1	641.4	706.9	722.8
72.5°	411.0	466.6	567.9	631.4	655.3
75°	329.6	393.2	494.4	561.9	577.8
77.5°	250.2	323.7	426.9	478.5	478.5
80°	178.7	256.1	351.5	375.3	379.3
82.5°	117.2	192.6	260.1	258.1	258.1
85°	67.5	125.1	154.9	150.9	150.9
87.5°	25.8	51.6	55.6	55.6	53.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)