

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: P276522

Luminaire Tested: **24CZ2-60HE-S-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276522  
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-5500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6234.3 lumens  
Efficiency: N/A  
Efficacy: 137.1 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

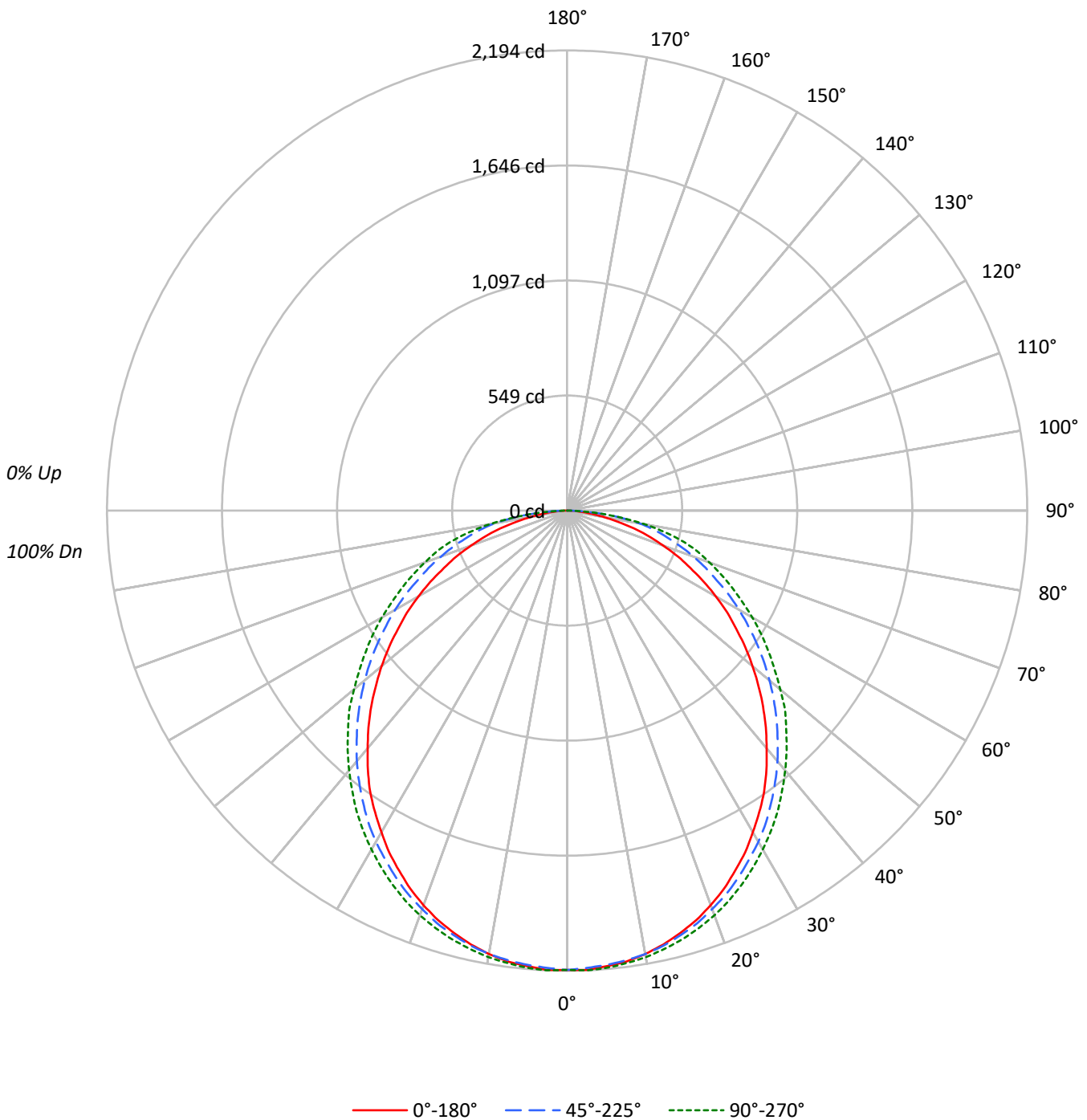
Input Watts (W): 45.477  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2947	2947	2947
5°	2945	2937	2955
10°	2933	2933	2954
15°	2905	2918	2949
20°	2867	2895	2940
25°	2813	2866	2922
30°	2750	2834	2898
35°	2690	2788	2875
40°	2598	2741	2842
45°	2513	2687	2811
50°	2417	2636	2777
55°	2309	2587	2750
60°	2201	2547	2744
65°	2061	2503	2762
70°	1909	2516	2836
75°	1709	2563	2996
80°	1381	2716	2930
85°	1039	2385	2323



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.3	3.3
10°-20°	592.5	9.5
20°-30°	890.6	14.3
30°-40°	1060.8	17.0
40°-50°	1085.7	17.4
50°-60°	977.5	15.7
60°-70°	767.6	12.3
70°-80°	498.2	8.0
80°-90°	154.1	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°	1690.4	27.1
0°-40°	2751.2	44.1
0°-60°	4814.4	77.2
0°-90°	6234.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6234.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2190	2190	2190	2190	2190	
5°	2180	2184	2174	2186	2188	207
15°	2085	2091	2095	2113	2117	588
25°	1895	1911	1931	1962	1968	873
35°	1638	1658	1697	1739	1750	1022
45°	1321	1352	1412	1465	1477	1018
55°	984	1028	1103	1160	1172	882
65°	648	697	786	852	867	645
75°	329	392	493	560	576	348
85°	67	125	154	150	150	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2190.2	2190.2	2190.2	2190.2	2190.2
2.5°	2192.1	2192.1	2182.2	2192.1	2194.1
5°	2180.3	2184.2	2174.3	2186.2	2188.2
7.5°	2168.4	2168.4	2162.4	2174.3	2176.3
10°	2146.6	2148.6	2146.6	2160.5	2162.4
12.5°	2118.9	2122.8	2124.8	2138.7	2140.7
15°	2085.2	2091.1	2095.1	2112.9	2116.9
17.5°	2047.6	2053.5	2063.4	2083.2	2087.2
20°	2002.0	2010.0	2021.8	2047.6	2053.5
22.5°	1952.5	1960.5	1980.3	2004.0	2013.9
25°	1895.1	1910.9	1930.7	1962.4	1968.4
27.5°	1837.7	1851.5	1877.3	1910.9	1918.9
30°	1770.3	1792.1	1823.8	1857.5	1865.4
32.5°	1705.0	1726.8	1764.4	1800.1	1810.0
35°	1637.7	1657.5	1697.1	1738.7	1750.5
37.5°	1560.4	1586.2	1629.7	1671.3	1683.2
40°	1479.3	1510.9	1560.4	1604.0	1617.9
42.5°	1402.0	1435.7	1485.2	1532.7	1548.6
45°	1320.8	1352.5	1411.9	1465.4	1477.3
47.5°	1237.7	1273.3	1336.7	1390.1	1409.9
50°	1154.5	1192.1	1259.4	1314.9	1326.8
52.5°	1071.3	1110.9	1182.2	1241.6	1247.6
55°	984.2	1027.8	1103.0	1160.4	1172.3
57.5°	905.0	942.6	1023.8	1083.2	1097.1
60°	817.8	859.4	946.6	1002.0	1019.8
62.5°	734.7	778.2	869.3	924.8	940.6
65°	647.5	697.0	786.2	851.5	867.4
67.5°	572.3	619.8	714.9	778.2	794.1
70°	485.2	538.6	639.6	705.0	720.8
72.5°	409.9	465.4	566.4	629.7	653.5
75°	328.7	392.1	493.1	560.4	576.3
77.5°	249.5	322.8	425.8	477.2	477.2
80°	178.2	255.5	350.5	374.3	378.2
82.5°	116.8	192.1	259.4	257.4	257.4
85°	67.3	124.8	154.5	150.5	150.5
87.5°	25.7	51.5	55.4	55.4	53.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)