

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: P389432

Luminaire Tested: **22CZ2-80VHE-S-UNV-L950-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P389432  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-80VHE-S-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7709.3 lumens  
Efficiency: N/A  
Efficacy: 130.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

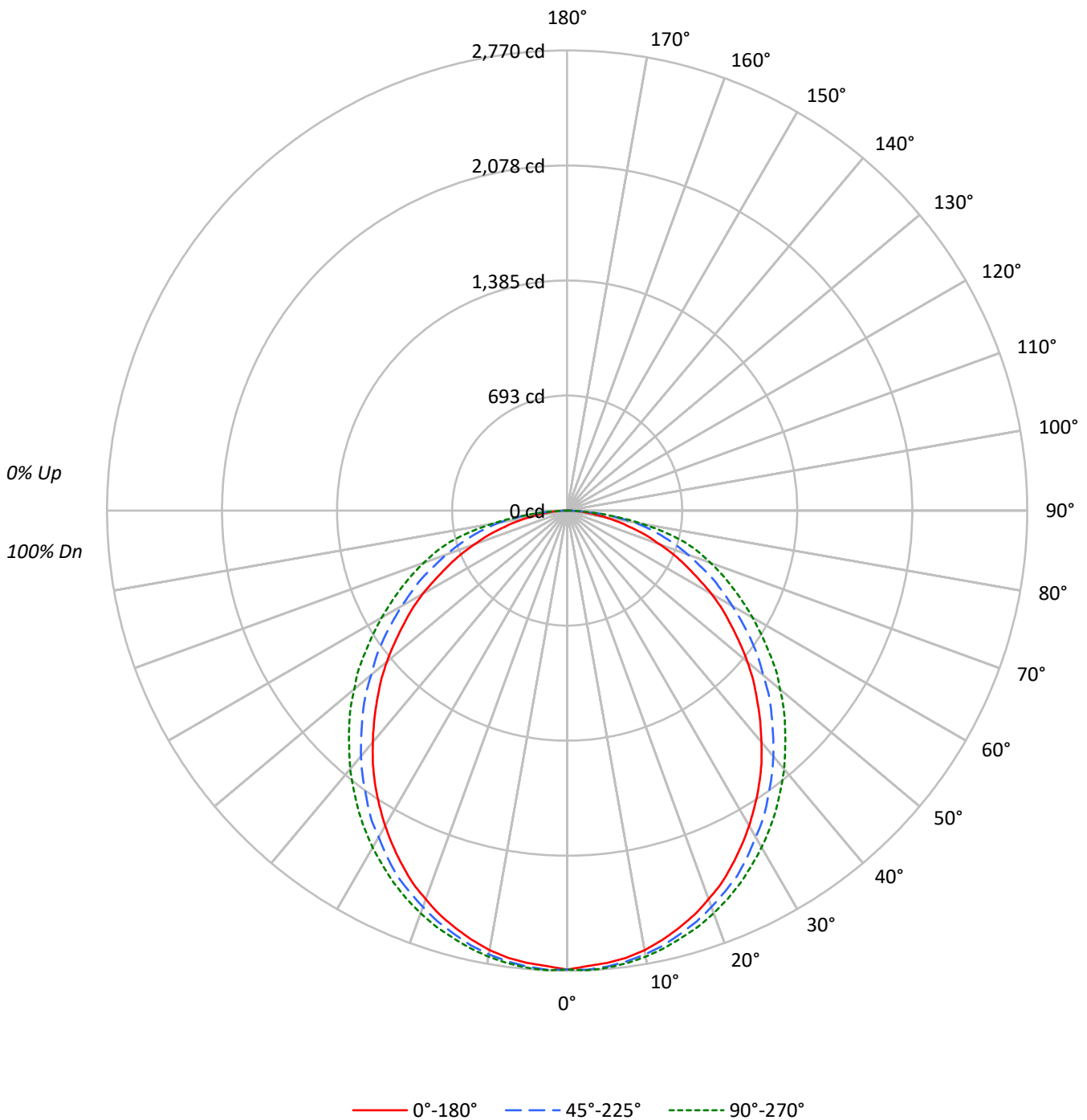
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	7434	7434	7434
5°	7384	7443	7462
10°	7342	7411	7450
15°	7245	7345	7416
20°	7128	7272	7385
25°	6985	7198	7337
30°	6807	7053	7276
35°	6617	6924	7208
40°	6394	6785	7139
45°	6160	6625	7063
50°	5933	6445	7002
55°	5653	6328	6953
60°	5401	6175	6930
65°	5039	6138	7009
70°	4641	6085	7216
75°	4189	6171	7592
80°	3623	6355	7135
85°	2998	5332	5332



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.2	3.4
10°-20°	743.5	9.6
20°-30°	1112.4	14.4
30°-40°	1317.4	17.1
40°-50°	1342.5	17.4
50°-60°	1203.3	15.6
60°-70°	942.1	12.2
70°-80°	607.5	7.9
80°-90°	179.5	2.3
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°	2117.1	27.5
0°-40°	3434.4	44.5
0°-60°	5980.3	77.6
0°-90°	7709.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7709.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2762	2762	2762	2762	2762	
5°	2734	2741	2755	2759	2762	260
15°	2601	2615	2637	2658	2662	733
25°	2352	2374	2424	2457	2471	1083
35°	2014	2040	2108	2173	2194	1259
45°	1619	1655	1741	1831	1856	1250
55°	1205	1245	1349	1442	1482	1080
65°	791	838	964	1058	1101	786
75°	403	464	594	694	730	432
85°	97	133	173	173	173	114
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2762.5	2762.5	2762.5	2762.5	2762.5
2.5°	2744.5	2751.7	2766.1	2769.7	2769.7
5°	2733.7	2740.9	2755.3	2758.9	2762.5
7.5°	2715.7	2719.3	2737.3	2744.5	2748.1
10°	2686.9	2694.1	2712.1	2722.9	2726.5
12.5°	2647.4	2658.2	2679.8	2694.1	2697.7
15°	2600.6	2615.0	2636.6	2658.2	2661.8
17.5°	2550.3	2564.6	2593.4	2618.6	2625.8
20°	2489.1	2507.1	2539.5	2568.2	2579.0
22.5°	2428.0	2442.4	2481.9	2517.9	2528.7
25°	2352.4	2374.0	2424.4	2456.7	2471.1
27.5°	2273.3	2298.5	2348.8	2392.0	2406.4
30°	2190.6	2215.7	2269.7	2323.7	2341.6
32.5°	2104.2	2133.0	2197.8	2251.7	2269.7
35°	2014.3	2039.5	2107.8	2172.6	2194.2
37.5°	1920.8	1942.4	2021.5	2089.8	2111.4
40°	1820.1	1848.8	1931.6	2010.7	2032.3
42.5°	1719.4	1751.7	1834.5	1920.8	1942.4
45°	1618.6	1654.6	1740.9	1830.9	1856.0
47.5°	1521.5	1550.3	1647.4	1733.7	1769.7
50°	1417.2	1446.0	1539.5	1636.6	1672.6
52.5°	1309.3	1348.9	1449.6	1543.1	1586.3
55°	1205.0	1244.6	1348.9	1442.4	1482.0
57.5°	1107.9	1140.2	1248.2	1345.3	1384.8
60°	1003.6	1032.3	1147.4	1251.7	1287.7
62.5°	892.1	935.2	1053.9	1151.0	1194.2
65°	791.3	838.1	964.0	1057.5	1100.7
67.5°	697.8	741.0	863.3	964.0	1010.8
70°	589.9	647.5	773.4	874.1	917.2
72.5°	503.6	553.9	683.4	784.1	830.9
75°	402.9	464.0	593.5	694.2	730.2
77.5°	320.1	381.3	503.6	582.7	600.7
80°	233.8	295.0	410.1	449.6	460.4
82.5°	158.3	215.8	295.0	305.7	309.3
85°	97.1	133.1	172.7	172.7	172.7
87.5°	46.8	54.0	61.1	57.6	57.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)