

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: P389085

Luminaire Tested: **22CZ2-100VHE-S-UNV-L930-CD1-SDWPD1-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: P389085  
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: 22CZ2-100VHE-S-UNV-L930-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8549.9 lumens  
Efficiency: N/A  
Efficacy: 110.0 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

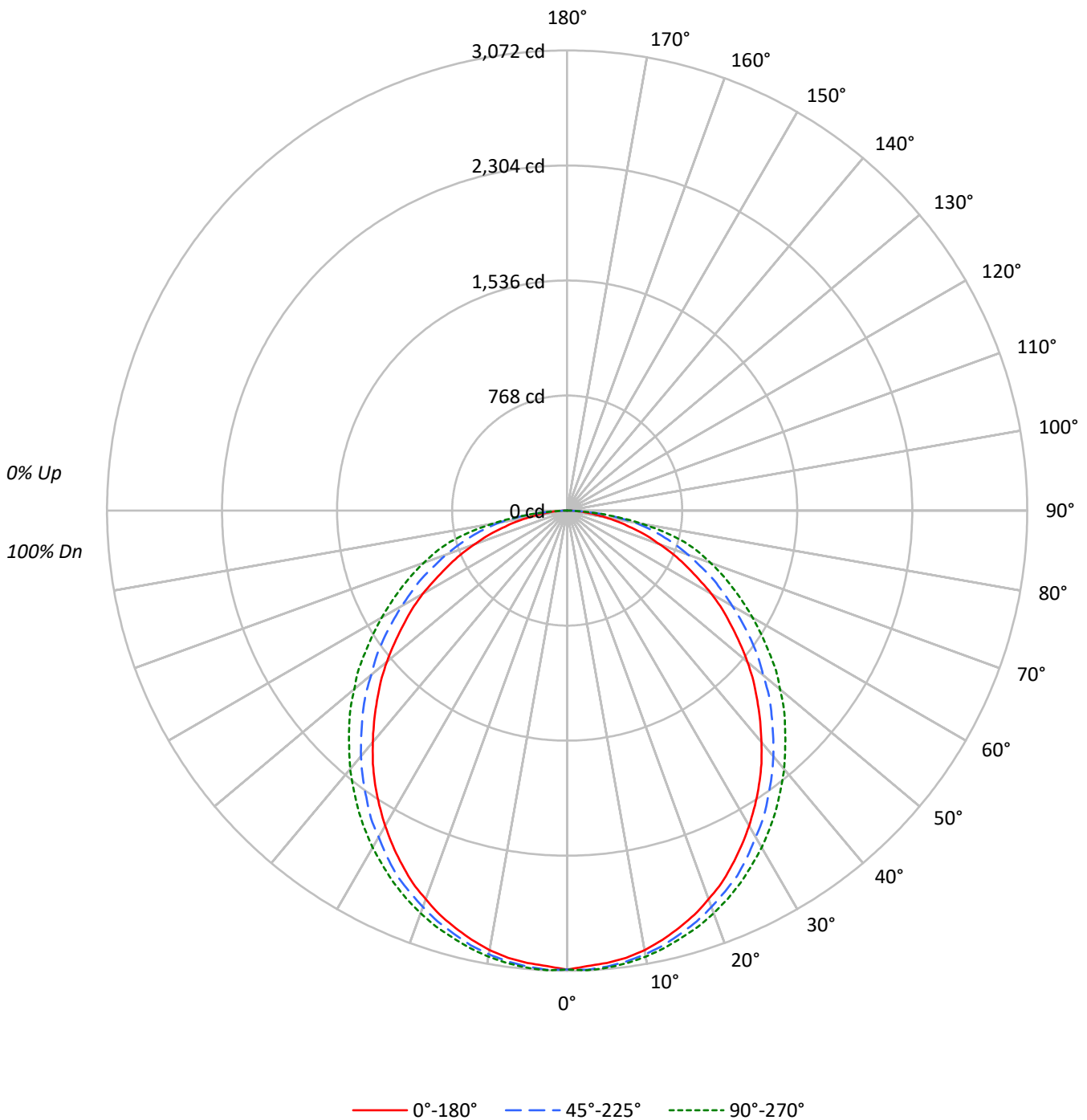
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8244	8244	8244
5°	8190	8254	8276
10°	8143	8219	8263
15°	8035	8146	8224
20°	7905	8065	8191
25°	7746	7983	8137
30°	7549	7822	8070
35°	7339	7680	7994
40°	7091	7525	7918
45°	6831	7348	7833
50°	6580	7148	7766
55°	6270	7018	7711
60°	5990	6849	7686
65°	5588	6807	7773
70°	5147	6748	8003
75°	4645	6843	8420
80°	4018	7048	7913
85°	3325	5913	5913



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	289.7	3.4
10°-20°	824.5	9.6
20°-30°	1233.7	14.4
30°-40°	1461.0	17.1
40°-50°	1488.9	17.4
50°-60°	1334.5	15.6
60°-70°	1044.8	12.2
70°-80°	673.7	7.9
80°-90°	199.0	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°	2347.9	27.5
0°-40°	3808.9	44.5
0°-60°	6632.3	77.6
0°-90°	8549.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8549.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3064	3064	3064	3064	3064	
5°	3032	3040	3056	3060	3064	288
15°	2884	2900	2924	2948	2952	813
25°	2609	2633	2689	2725	2741	1201
35°	2234	2262	2338	2410	2433	1396
45°	1795	1835	1931	2030	2058	1386
55°	1336	1380	1496	1600	1644	1198
65°	878	930	1069	1173	1221	872
75°	447	515	658	770	810	479
85°	108	148	192	192	192	126
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3063.7	3063.7	3063.7	3063.7	3063.7
2.5°	3043.7	3051.7	3067.7	3071.7	3071.7
5°	3031.8	3039.8	3055.7	3059.7	3063.7
7.5°	3011.8	3015.8	3035.8	3043.7	3047.7
10°	2979.9	2987.9	3007.8	3019.8	3023.8
12.5°	2936.0	2948.0	2971.9	2987.9	2991.9
15°	2884.2	2900.1	2924.1	2948.0	2952.0
17.5°	2828.3	2844.3	2876.2	2904.1	2912.1
20°	2760.5	2780.5	2816.4	2848.3	2860.2
22.5°	2692.7	2708.7	2752.5	2792.4	2804.4
25°	2608.9	2632.9	2688.7	2724.6	2740.6
27.5°	2521.2	2549.1	2604.9	2652.8	2668.8
30°	2429.4	2457.3	2517.2	2577.0	2597.0
32.5°	2333.7	2365.6	2437.4	2497.2	2517.2
35°	2233.9	2261.9	2337.7	2409.5	2433.4
37.5°	2130.2	2154.2	2241.9	2317.7	2341.7
40°	2018.5	2050.4	2142.2	2230.0	2253.9
42.5°	1906.8	1942.7	2034.5	2130.2	2154.2
45°	1795.1	1835.0	1930.8	2030.5	2058.4
47.5°	1687.4	1719.3	1827.0	1922.8	1962.7
50°	1571.7	1603.7	1707.4	1815.1	1855.0
52.5°	1452.1	1495.9	1607.6	1711.4	1759.2
55°	1336.4	1380.3	1495.9	1599.7	1643.5
57.5°	1228.7	1264.6	1384.2	1492.0	1535.8
60°	1113.0	1144.9	1272.6	1388.2	1428.1
62.5°	989.3	1037.2	1168.8	1276.5	1324.4
65°	877.6	929.5	1069.1	1172.8	1220.7
67.5°	773.9	821.8	957.4	1069.1	1121.0
70°	654.2	718.1	857.7	969.4	1017.2
72.5°	558.5	614.3	757.9	869.6	921.5
75°	446.8	514.6	658.2	769.9	809.8
77.5°	355.0	422.9	558.5	646.2	666.2
80°	259.3	327.1	454.8	498.6	510.6
82.5°	175.5	239.4	327.1	339.1	343.1
85°	107.7	147.6	191.5	191.5	191.5
87.5°	51.9	59.8	67.8	63.8	63.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)