

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: P389456

Luminaire Tested: **22CZ2-85VHE-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: P389456  
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: 22CZ2-85VHE-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: 8207.6 lumens  
Efficiency: N/A  
Efficacy: 129.1 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

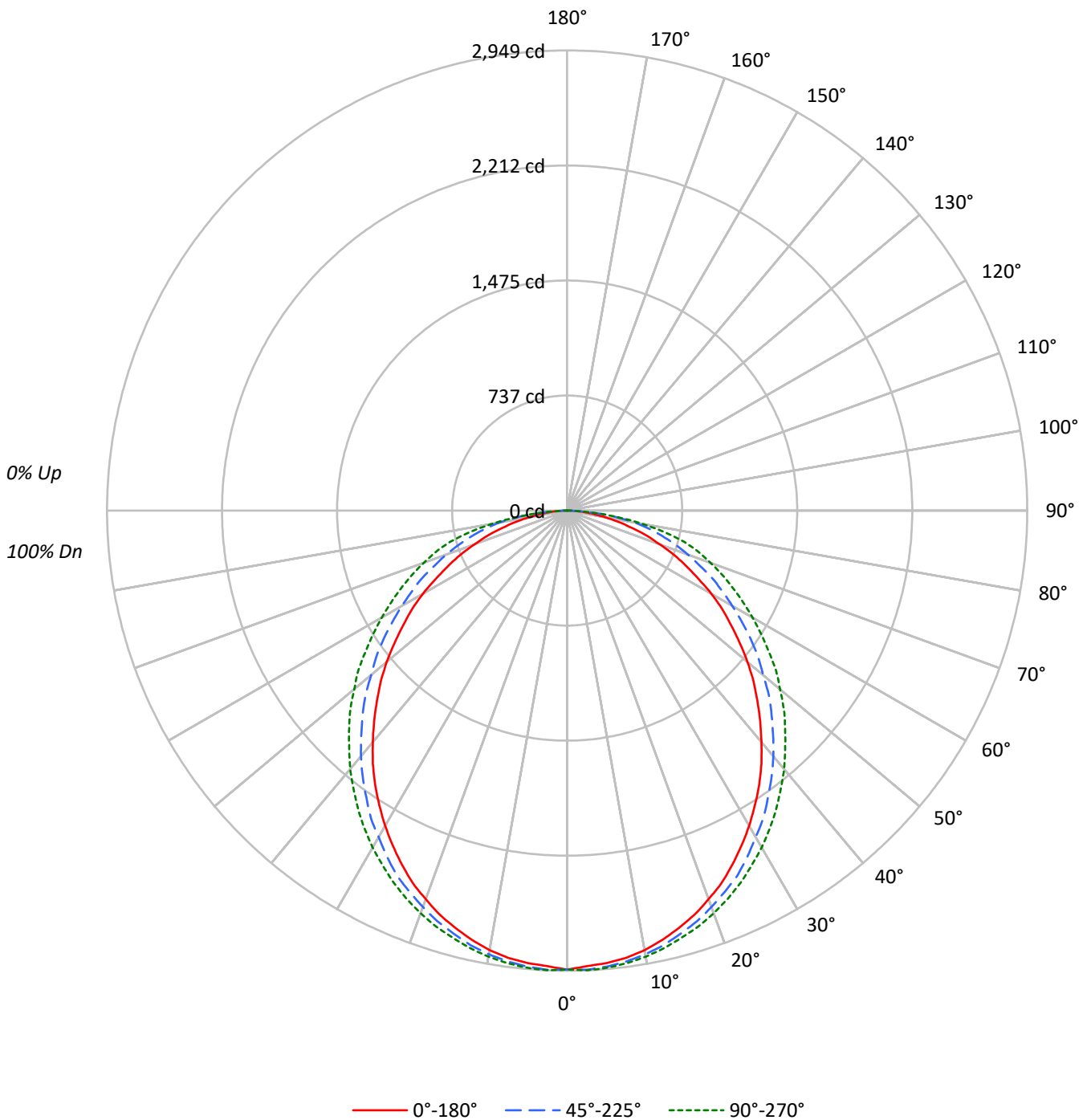
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	7914	7914	7914
5°	7862	7924	7944
10°	7817	7890	7932
15°	7713	7820	7895
20°	7589	7742	7863
25°	7436	7664	7812
30°	7247	7508	7746
35°	7045	7372	7674
40°	6807	7224	7601
45°	6558	7054	7520
50°	6316	6862	7455
55°	6019	6738	7402
60°	5750	6575	7379
65°	5365	6535	7461
70°	4941	6478	7683
75°	4459	6570	8083
80°	3857	6766	7596
85°	3193	5675	5675



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.1	3.4
10°-20°	791.5	9.6
20°-30°	1184.3	14.4
30°-40°	1402.5	17.1
40°-50°	1429.3	17.4
50°-60°	1281.1	15.6
60°-70°	1003.0	12.2
70°-80°	646.7	7.9
80°-90°	191.1	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°	2253.9	27.5
0°-40°	3656.4	44.5
0°-60°	6366.8	77.6
0°-90°	8207.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8207.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2941	2941	2941	2941	2941	
5°	2910	2918	2933	2937	2941	276
15°	2769	2784	2807	2830	2834	781
25°	2504	2528	2581	2616	2631	1153
35°	2144	2171	2244	2313	2336	1340
45°	1723	1762	1854	1949	1976	1331
55°	1283	1325	1436	1536	1578	1150
65°	842	892	1026	1126	1172	837
75°	429	494	632	739	777	460
85°	103	142	184	184	184	121
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2941.0	2941.0	2941.0	2941.0	2941.0
2.5°	2921.9	2929.6	2944.9	2948.7	2948.7
5°	2910.4	2918.1	2933.4	2937.2	2941.0
7.5°	2891.3	2895.1	2914.2	2921.9	2925.7
10°	2860.6	2868.3	2887.4	2898.9	2902.7
12.5°	2818.5	2830.0	2853.0	2868.3	2872.1
15°	2768.7	2784.0	2807.0	2830.0	2833.8
17.5°	2715.1	2730.4	2761.1	2787.9	2795.5
20°	2650.0	2669.1	2703.6	2734.2	2745.7
22.5°	2584.9	2600.2	2642.3	2680.6	2692.1
25°	2504.5	2527.5	2581.1	2615.5	2630.9
27.5°	2420.2	2447.0	2500.6	2546.6	2561.9
30°	2332.2	2359.0	2416.4	2473.8	2493.0
32.5°	2240.2	2270.9	2339.8	2397.3	2416.4
35°	2144.5	2171.3	2244.1	2313.0	2336.0
37.5°	2044.9	2067.9	2152.2	2224.9	2247.9
40°	1937.7	1968.4	2056.4	2140.7	2163.7
42.5°	1830.5	1865.0	1953.0	2044.9	2067.9
45°	1723.3	1761.6	1853.5	1949.2	1976.0
47.5°	1619.9	1650.5	1753.9	1845.8	1884.1
50°	1508.8	1539.5	1639.0	1742.4	1780.7
52.5°	1393.9	1436.1	1543.3	1642.8	1688.8
55°	1282.9	1325.0	1436.1	1535.6	1577.7
57.5°	1179.5	1213.9	1328.8	1432.2	1474.3
60°	1068.4	1099.1	1221.6	1332.7	1371.0
62.5°	949.7	995.7	1122.0	1225.4	1271.4
65°	842.5	892.3	1026.3	1125.9	1171.8
67.5°	742.9	788.9	919.1	1026.3	1076.1
70°	628.0	689.3	823.3	930.6	976.5
72.5°	536.1	589.7	727.6	834.8	884.6
75°	428.9	494.0	631.9	739.1	777.4
77.5°	340.8	405.9	536.1	620.4	639.5
80°	248.9	314.0	436.6	478.7	490.2
82.5°	168.5	229.8	314.0	325.5	329.3
85°	103.4	141.7	183.8	183.8	183.8
87.5°	49.8	57.4	65.1	61.3	61.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)