

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: P389449

Luminaire Tested: **22CZ2-85VHE-S-UNV-L935-CD1-SWPD1-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: P389449  
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-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7558.4 lumens  
Efficiency: N/A  
Efficacy: 118.8 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

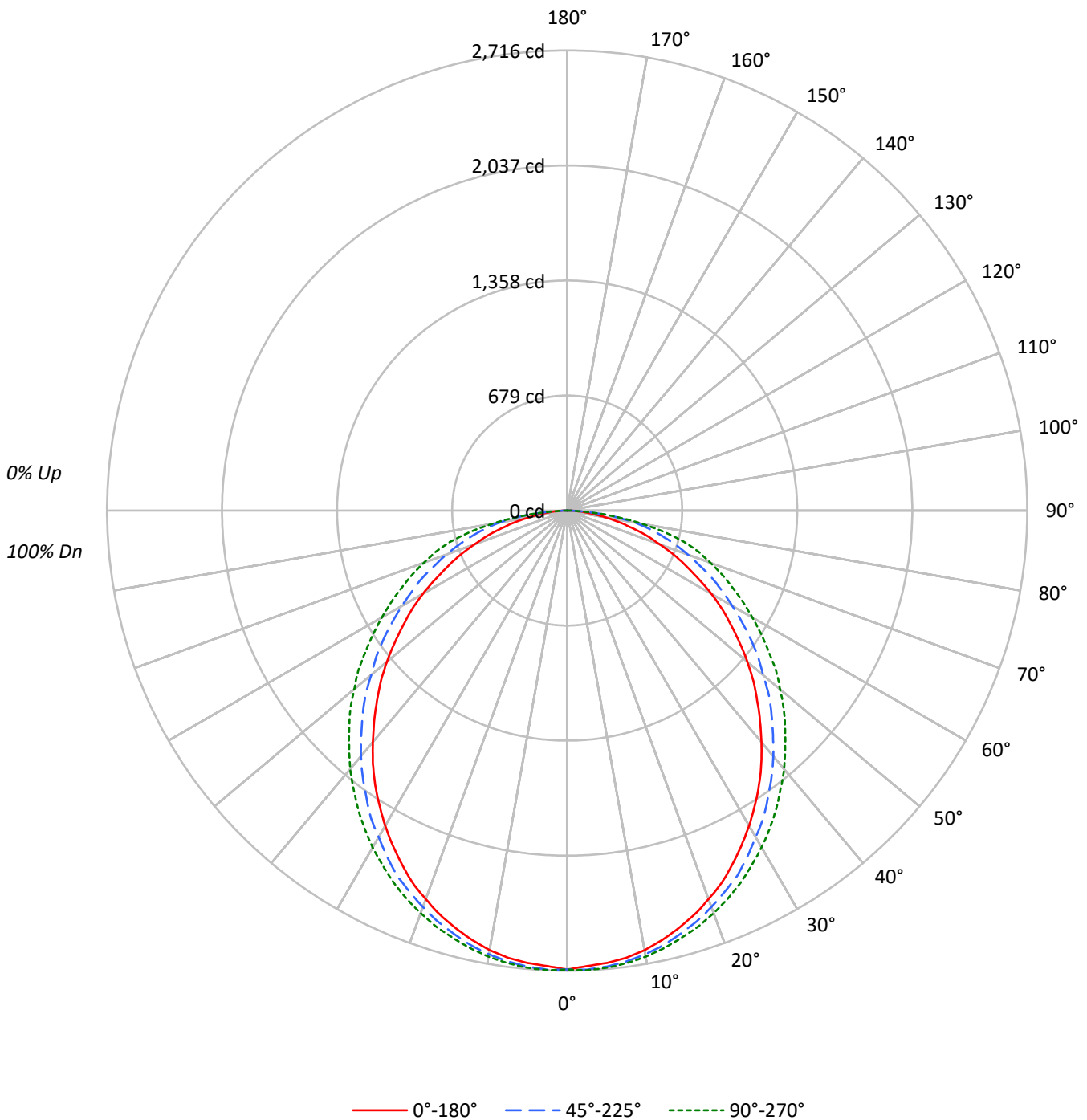
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7288	7288	7288
5°	7240	7297	7316
10°	7198	7266	7304
15°	7103	7202	7270
20°	6989	7130	7241
25°	6848	7057	7194
30°	6673	6915	7134
35°	6488	6789	7067
40°	6268	6653	6999
45°	6040	6496	6925
50°	5817	6319	6865
55°	5543	6205	6816
60°	5295	6055	6795
65°	4940	6018	6871
70°	4551	5965	7076
75°	4107	6050	7443
80°	3552	6230	6995
85°	2939	5227	5227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.1	3.4
10°-20°	728.9	9.6
20°-30°	1090.6	14.4
30°-40°	1291.6	17.1
40°-50°	1316.3	17.4
50°-60°	1179.7	15.6
60°-70°	923.6	12.2
70°-80°	595.6	7.9
80°-90°	176.0	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°	2075.6	27.5
0°-40°	3367.2	44.5
0°-60°	5863.2	77.6
0°-90°	7558.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7558.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2708	2708	2708	2708	2708	
5°	2680	2687	2701	2705	2708	254
15°	2550	2564	2585	2606	2610	719
25°	2306	2328	2377	2409	2423	1062
35°	1975	2000	2067	2130	2151	1234
45°	1587	1622	1707	1795	1820	1226
55°	1181	1220	1322	1414	1453	1059
65°	776	822	945	1037	1079	771
75°	395	455	582	681	716	423
85°	95	130	169	169	169	112
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2708.4	2708.4	2708.4	2708.4	2708.4
2.5°	2690.8	2697.8	2711.9	2715.5	2715.5
5°	2680.2	2687.3	2701.4	2704.9	2708.4
7.5°	2662.6	2666.1	2683.7	2690.8	2694.3
10°	2634.4	2641.4	2659.0	2669.6	2673.1
12.5°	2595.6	2606.1	2627.3	2641.4	2644.9
15°	2549.7	2563.8	2585.0	2606.1	2609.7
17.5°	2500.3	2514.4	2542.7	2567.3	2574.4
20°	2440.4	2458.0	2489.8	2518.0	2528.6
22.5°	2380.4	2394.5	2433.3	2468.6	2479.2
25°	2306.4	2327.5	2376.9	2408.7	2422.8
27.5°	2228.8	2253.5	2302.9	2345.2	2359.3
30°	2147.7	2172.4	2225.3	2278.2	2295.8
32.5°	2063.0	2091.3	2154.7	2207.6	2225.3
35°	1974.9	1999.6	2066.6	2130.1	2151.2
37.5°	1883.2	1904.4	1981.9	2048.9	2070.1
40°	1784.4	1812.7	1893.8	1971.4	1992.5
42.5°	1685.7	1717.4	1798.6	1883.2	1904.4
45°	1587.0	1622.2	1706.9	1795.0	1819.7
47.5°	1491.7	1520.0	1615.2	1699.8	1735.1
50°	1389.5	1417.7	1509.4	1604.6	1639.9
52.5°	1283.7	1322.5	1421.2	1512.9	1555.2
55°	1181.4	1220.2	1322.5	1414.2	1452.9
57.5°	1086.2	1117.9	1223.7	1318.9	1357.7
60°	983.9	1012.1	1125.0	1227.2	1262.5
62.5°	874.6	916.9	1033.3	1128.5	1170.8
65°	775.8	821.7	945.1	1036.8	1079.1
67.5°	684.2	726.5	846.4	945.1	991.0
70°	578.4	634.8	758.2	857.0	899.3
72.5°	493.7	543.1	670.0	768.8	814.6
75°	395.0	454.9	581.9	680.6	715.9
77.5°	313.9	373.8	493.7	571.3	588.9
80°	229.2	289.2	402.0	440.8	451.4
82.5°	155.2	211.6	289.2	299.8	303.3
85°	95.2	130.5	169.3	169.3	169.3
87.5°	45.8	52.9	60.0	56.4	56.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)