

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: P388205

Luminaire Tested: **22CZ2-80VHE-SQR-UNV-L935-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: P388205  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-80VHE-SQR-UNV-L935-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6570.6 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

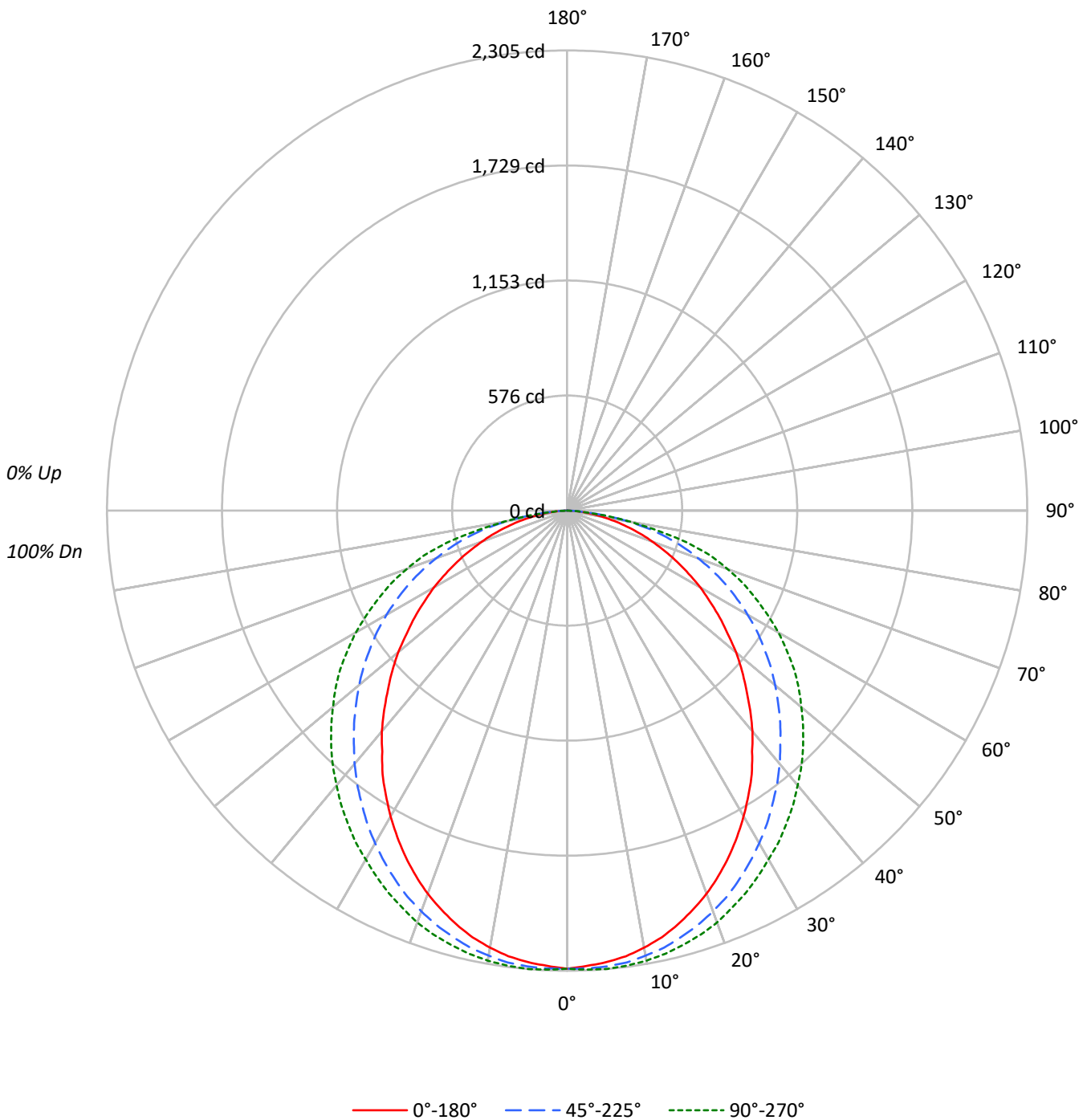
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	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°	6177	6177	6177
5°	6133	6192	6225
10°	6076	6187	6255
15°	5977	6160	6273
20°	5850	6117	6287
25°	5685	6056	6278
30°	5494	5979	6270
35°	5297	5891	6290
40°	5072	5817	6310
45°	4830	5744	6361
50°	4622	5692	6410
55°	4375	5648	6511
60°	4146	5623	6579
65°	3872	5580	6632
70°	3558	5497	6723
75°	3210	5350	6485
80°	2755	4736	4881
85°	2214	2791	2214



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.6	3.3
10°-20°	622.1	9.5
20°-30°	934.4	14.2
30°-40°	1114.4	17.0
40°-50°	1152.2	17.5
50°-60°	1059.3	16.1
60°-70°	843.3	12.8
70°-80°	515.2	7.8
80°-90°	112.0	1.7
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°	1774.1	27.0
0°-40°	2888.6	44.0
0°-60°	5100.1	77.6
0°-90°	6570.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6570.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2295	2295	2295	2295	2295	
5°	2270	2277	2292	2302	2305	215
15°	2146	2170	2211	2242	2252	604
25°	1915	1962	2040	2096	2114	881
35°	1612	1681	1793	1887	1915	1006
45°	1269	1360	1509	1631	1672	982
55°	932	1035	1204	1341	1388	834
65°	608	711	876	998	1042	602
75°	309	399	515	605	624	329
85°	72	87	90	78	72	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2295.3	2295.3	2295.3	2295.3	2295.3
2.5°	2282.8	2285.9	2295.3	2301.5	2301.5
5°	2270.3	2276.6	2292.2	2301.5	2304.6
7.5°	2251.6	2261.0	2282.8	2295.3	2298.4
10°	2223.5	2236.0	2264.1	2282.8	2289.0
12.5°	2189.2	2207.9	2242.3	2267.2	2273.4
15°	2145.6	2170.5	2211.1	2242.3	2251.6
17.5°	2095.7	2126.9	2176.8	2214.2	2226.7
20°	2042.7	2073.9	2136.2	2179.9	2195.5
22.5°	1980.3	2020.8	2092.6	2142.5	2154.9
25°	1914.8	1961.6	2039.5	2095.7	2114.4
27.5°	1843.1	1899.2	1983.4	2052.0	2067.6
30°	1768.2	1827.5	1924.2	1999.0	2017.7
32.5°	1690.3	1758.9	1861.8	1946.0	1970.9
35°	1612.3	1680.9	1793.2	1886.7	1914.8
37.5°	1521.9	1602.9	1727.7	1824.4	1858.7
40°	1443.9	1521.9	1656.0	1762.0	1796.3
42.5°	1356.6	1440.8	1581.1	1696.5	1737.0
45°	1269.3	1359.7	1509.4	1631.0	1671.6
47.5°	1188.2	1278.6	1434.5	1562.4	1602.9
50°	1104.0	1197.5	1359.7	1490.7	1531.2
52.5°	1013.5	1116.4	1284.9	1415.8	1462.6
55°	932.5	1035.4	1203.8	1341.0	1387.8
57.5°	848.3	954.3	1128.9	1259.9	1303.6
60°	770.3	873.2	1044.7	1172.6	1222.5
62.5°	686.1	792.1	960.5	1085.3	1132.0
65°	608.1	711.0	876.3	997.9	1041.6
67.5°	530.2	633.1	789.0	904.4	954.3
70°	452.2	555.1	698.6	810.8	854.5
72.5°	383.6	474.0	611.2	714.2	754.7
75°	308.7	399.2	514.6	605.0	623.7
77.5°	240.1	321.2	417.9	458.4	464.7
80°	177.8	240.1	305.6	315.0	315.0
82.5°	118.5	165.3	190.2	193.4	190.2
85°	71.7	87.3	90.4	78.0	71.7
87.5°	24.9	24.9	15.6	9.4	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)