

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: P387773

Luminaire Tested: **22CZ2-24VHE-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: P387773
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: 22CZ2-24VHE-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: 2030.8 lumens
Efficiency: N/A
Efficacy: 116.0 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

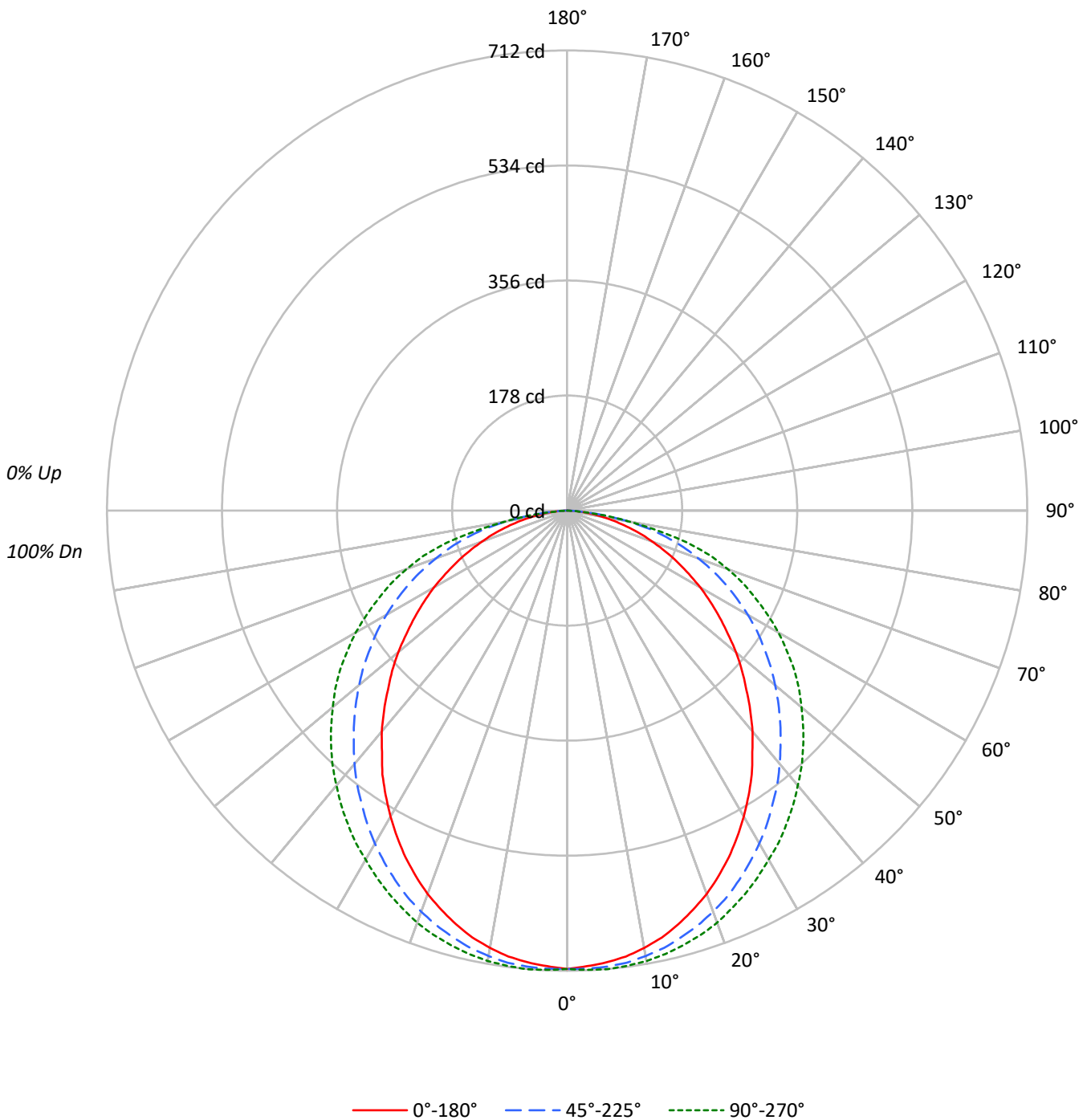
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1909	1909	1909
5°	1895	1914	1924
10°	1878	1912	1933
15°	1847	1904	1939
20°	1808	1891	1943
25°	1757	1872	1940
30°	1698	1848	1938
35°	1637	1821	1944
40°	1568	1798	1950
45°	1493	1775	1966
50°	1428	1759	1981
55°	1352	1746	2012
60°	1281	1738	2033
65°	1197	1724	2050
70°	1100	1699	2078
75°	992	1653	2005
80°	851	1464	1509
85°	685	865	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	3.3
10°-20°	192.3	9.5
20°-30°	288.8	14.2
30°-40°	344.4	17.0
40°-50°	356.1	17.5
50°-60°	327.4	16.1
60°-70°	260.7	12.8
70°-80°	159.2	7.8
80°-90°	34.6	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°	548.3	27.0
0°-40°	892.8	44.0
0°-60°	1576.3	77.6
0°-90°	2030.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2030.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	702	704	708	711	712	67
15°	663	671	683	693	696	187
25°	592	606	630	648	654	272
35°	498	520	554	583	592	311
45°	392	420	466	504	517	303
55°	288	320	372	414	429	258
65°	188	220	271	308	322	186
75°	95	123	159	187	193	102
85°	22	27	28	24	22	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	709.4	709.4	709.4	709.4	709.4
2.5°	705.6	706.5	709.4	711.3	711.3
5°	701.7	703.6	708.4	711.3	712.3
7.5°	695.9	698.8	705.6	709.4	710.4
10°	687.2	691.1	699.8	705.6	707.5
12.5°	676.6	682.4	693.0	700.7	702.7
15°	663.1	670.9	683.4	693.0	695.9
17.5°	647.7	657.4	672.8	684.3	688.2
20°	631.3	641.0	660.3	673.7	678.6
22.5°	612.1	624.6	646.8	662.2	666.0
25°	591.8	606.3	630.4	647.7	653.5
27.5°	569.6	587.0	613.0	634.2	639.0
30°	546.5	564.8	594.7	617.8	623.6
32.5°	522.4	543.6	575.4	601.5	609.2
35°	498.3	519.5	554.2	583.1	591.8
37.5°	470.4	495.4	534.0	563.9	574.5
40°	446.3	470.4	511.8	544.6	555.2
42.5°	419.3	445.3	488.7	524.3	536.9
45°	392.3	420.2	466.5	504.1	516.6
47.5°	367.2	395.2	443.4	482.9	495.4
50°	341.2	370.1	420.2	460.7	473.3
52.5°	313.3	345.1	397.1	437.6	452.1
55°	288.2	320.0	372.1	414.5	428.9
57.5°	262.2	294.9	348.9	389.4	402.9
60°	238.1	269.9	322.9	362.4	377.8
62.5°	212.1	244.8	296.9	335.4	349.9
65°	188.0	219.8	270.8	308.4	321.9
67.5°	163.9	195.7	243.9	279.5	294.9
70°	139.8	171.6	215.9	250.6	264.1
72.5°	118.6	146.5	188.9	220.7	233.3
75°	95.4	123.4	159.0	187.0	192.8
77.5°	74.2	99.3	129.2	141.7	143.6
80°	54.9	74.2	94.5	97.4	97.4
82.5°	36.6	51.1	58.8	59.8	58.8
85°	22.2	27.0	28.0	24.1	22.2
87.5°	7.7	7.7	4.8	2.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)