

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: P277446

Luminaire Tested: **22CZ2-24HE-S-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277446
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-S-UNV-L92765-W2A1-U-4000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2115.0 lumens
Efficiency: N/A
Efficacy: 119.1 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

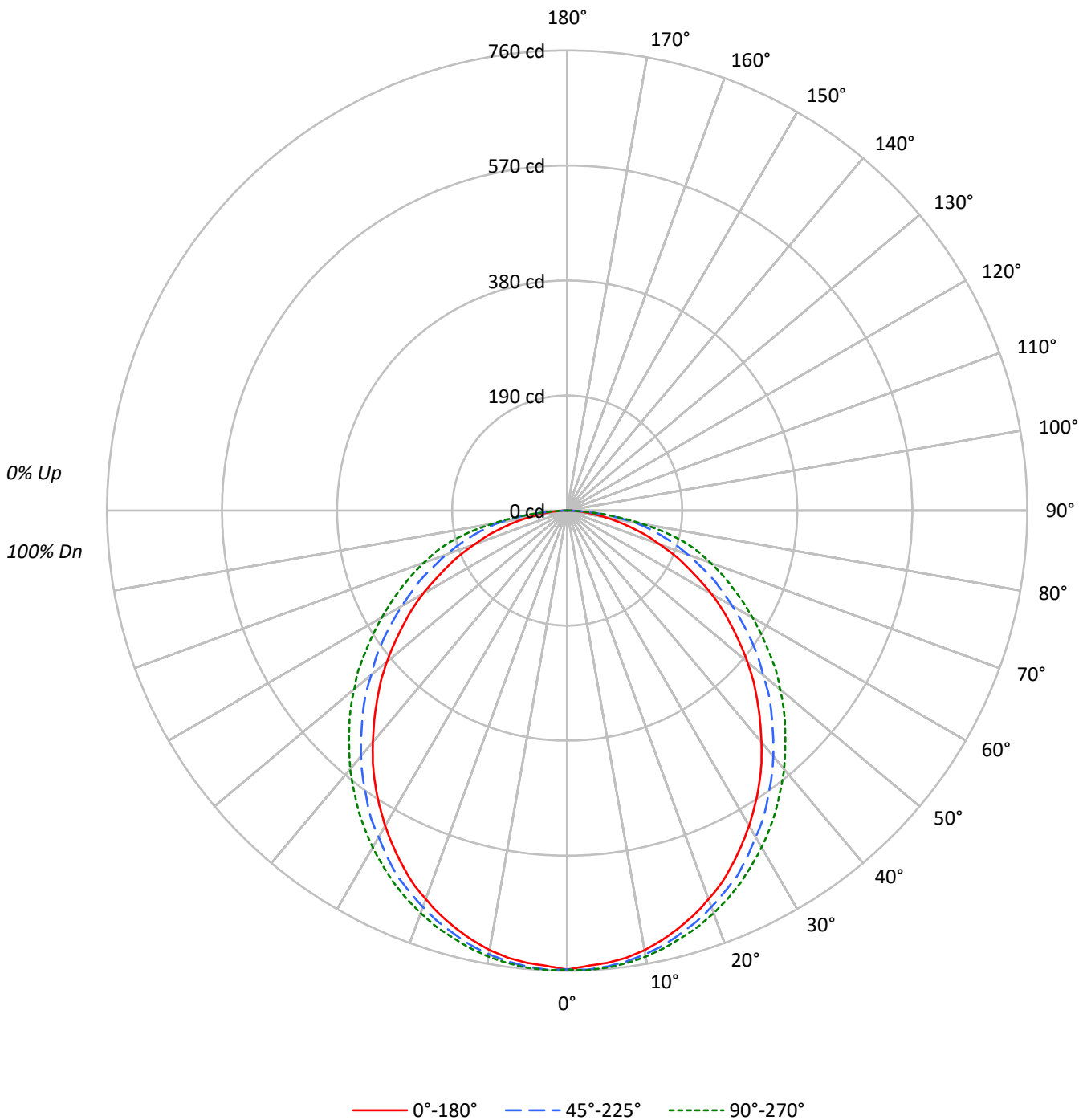
Input Watts (W): 17.763
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2039	2039	2039
5°	2026	2042	2047
10°	2014	2033	2044
15°	1988	2015	2034
20°	1956	1995	2026
25°	1916	1975	2013
30°	1867	1935	1996
35°	1815	1900	1978
40°	1754	1861	1958
45°	1690	1818	1938
50°	1628	1768	1921
55°	1551	1736	1908
60°	1482	1694	1901
65°	1382	1684	1923
70°	1273	1670	1980
75°	1149	1693	2083
80°	993	1743	1957
85°	821	1463	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	3.4
10°-20°	204.0	9.6
20°-30°	305.2	14.4
30°-40°	361.4	17.1
40°-50°	368.3	17.4
50°-60°	330.1	15.6
60°-70°	258.5	12.2
70°-80°	166.7	7.9
80°-90°	49.2	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°	580.8	27.5
0°-40°	942.2	44.5
0°-60°	1640.7	77.6
0°-90°	2115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2115.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	750	752	756	757	758	71
15°	714	717	723	729	730	201
25°	645	651	665	674	678	297
35°	553	560	578	596	602	345
45°	444	454	478	502	509	343
55°	331	341	370	396	407	296
65°	217	230	264	290	302	216
75°	110	127	163	190	200	118
85°	27	36	47	47	47	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.9	757.9	757.9	757.9	757.9
2.5°	752.9	754.9	758.9	759.8	759.8
5°	750.0	751.9	755.9	756.9	757.9
7.5°	745.0	746.0	751.0	752.9	753.9
10°	737.1	739.1	744.1	747.0	748.0
12.5°	726.3	729.3	735.2	739.1	740.1
15°	713.5	717.4	723.3	729.3	730.2
17.5°	699.6	703.6	711.5	718.4	720.4
20°	682.9	687.8	696.7	704.6	707.5
22.5°	666.1	670.0	680.9	690.8	693.7
25°	645.4	651.3	665.1	674.0	677.9
27.5°	623.7	630.6	644.4	656.2	660.2
30°	601.0	607.9	622.7	637.5	642.4
32.5°	577.3	585.2	602.9	617.7	622.7
35°	552.6	559.5	578.3	596.0	602.0
37.5°	527.0	532.9	554.6	573.3	579.3
40°	499.3	507.2	529.9	551.6	557.5
42.5°	471.7	480.6	503.3	527.0	532.9
45°	444.1	453.9	477.6	502.3	509.2
47.5°	417.4	425.3	452.0	475.6	485.5
50°	388.8	396.7	422.4	449.0	458.9
52.5°	359.2	370.1	397.7	423.3	435.2
55°	330.6	341.4	370.1	395.7	406.6
57.5°	303.9	312.8	342.4	369.1	379.9
60°	275.3	283.2	314.8	343.4	353.3
62.5°	244.7	256.6	289.1	315.8	327.6
65°	217.1	229.9	264.5	290.1	302.0
67.5°	191.4	203.3	236.8	264.5	277.3
70°	161.8	177.6	212.2	239.8	251.6
72.5°	138.2	152.0	187.5	215.1	228.0
75°	110.5	127.3	162.8	190.5	200.3
77.5°	87.8	104.6	138.2	159.9	164.8
80°	64.1	80.9	112.5	123.4	126.3
82.5°	43.4	59.2	80.9	83.9	84.9
85°	26.6	36.5	47.4	47.4	47.4
87.5°	12.8	14.8	16.8	15.8	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)