

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: P277356

Luminaire Tested: **22CZ2-24HE-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277356
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-L93050-W2A1-U-3500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2036.0 lumens
Efficiency: N/A
Efficacy: 113.7 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

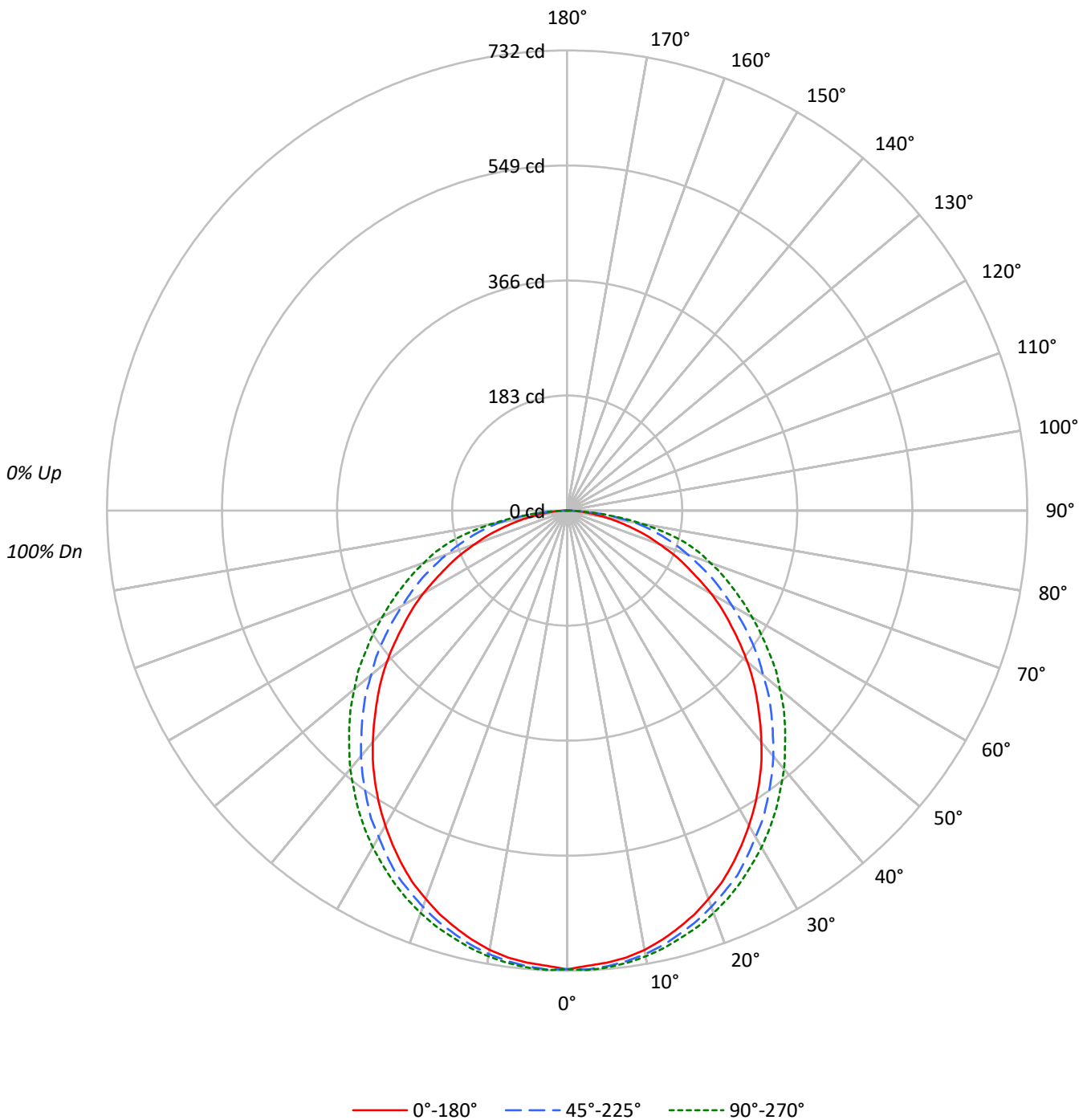
Input Watts (W): 17.910963
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1963	1963	1963
5°	1950	1966	1971
10°	1939	1957	1968
15°	1913	1940	1958
20°	1883	1921	1950
25°	1845	1901	1938
30°	1798	1863	1922
35°	1748	1829	1904
40°	1689	1792	1885
45°	1627	1750	1866
50°	1567	1702	1849
55°	1493	1671	1836
60°	1426	1631	1830
65°	1331	1621	1851
70°	1226	1607	1906
75°	1106	1629	2005
80°	956	1678	1884
85°	790	1408	1408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	3.4
10°-20°	196.3	9.6
20°-30°	293.8	14.4
30°-40°	347.9	17.1
40°-50°	354.6	17.4
50°-60°	317.8	15.6
60°-70°	248.8	12.2
70°-80°	160.4	7.9
80°-90°	47.4	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°	559.1	27.5
0°-40°	907.0	44.6
0°-60°	1579.4	77.6
0°-90°	2036.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	722	724	728	729	730	69
15°	687	691	696	702	703	194
25°	621	627	640	649	653	286
35°	532	539	557	574	580	332
45°	428	437	460	484	490	330
55°	318	329	356	381	391	285
65°	209	221	255	279	291	208
75°	106	122	157	183	193	114
85°	26	35	46	46	46	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.6	729.6	729.6	729.6	729.6
2.5°	724.8	726.7	730.5	731.5	731.5
5°	722.0	723.9	727.7	728.6	729.6
7.5°	717.2	718.2	722.9	724.8	725.8
10°	709.6	711.5	716.3	719.1	720.1
12.5°	699.2	702.0	707.7	711.5	712.5
15°	686.8	690.6	696.3	702.0	703.0
17.5°	673.5	677.3	684.9	691.6	693.5
20°	657.4	662.1	670.7	678.3	681.1
22.5°	641.2	645.0	655.5	665.0	667.8
25°	621.3	627.0	640.3	648.8	652.6
27.5°	600.4	607.0	620.3	631.7	635.5
30°	578.5	585.2	599.4	613.7	618.4
32.5°	555.7	563.3	580.4	594.7	599.4
35°	532.0	538.6	556.7	573.8	579.5
37.5°	507.3	513.0	533.9	551.9	557.6
40°	480.7	488.3	510.1	531.0	536.7
42.5°	454.1	462.6	484.5	507.3	513.0
45°	427.5	437.0	459.8	483.5	490.2
47.5°	401.8	409.4	435.1	457.9	467.4
50°	374.3	381.9	406.6	432.2	441.7
52.5°	345.8	356.2	382.8	407.5	418.9
55°	318.2	328.7	356.2	380.9	391.4
57.5°	292.6	301.1	329.6	355.3	365.7
60°	265.0	272.6	303.0	330.6	340.1
62.5°	235.6	247.0	278.3	304.0	315.4
65°	209.0	221.3	254.6	279.3	290.7
67.5°	184.3	195.7	228.0	254.6	266.9
70°	155.8	171.0	204.2	230.8	242.2
72.5°	133.0	146.3	180.5	207.1	219.4
75°	106.4	122.5	156.7	183.3	192.8
77.5°	84.5	100.7	133.0	153.9	158.6
80°	61.7	77.9	108.3	118.7	121.6
82.5°	41.8	57.0	77.9	80.7	81.7
85°	25.6	35.1	45.6	45.6	45.6
87.5°	12.3	14.2	16.1	15.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)