

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: P277323

Luminaire Tested: **22CZ2-20HE-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277323
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: 22CZ2-20HE-S-UNV-L83050-W2A1-U-4500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2250.0 lumens
Efficiency: N/A
Efficacy: 138.2 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

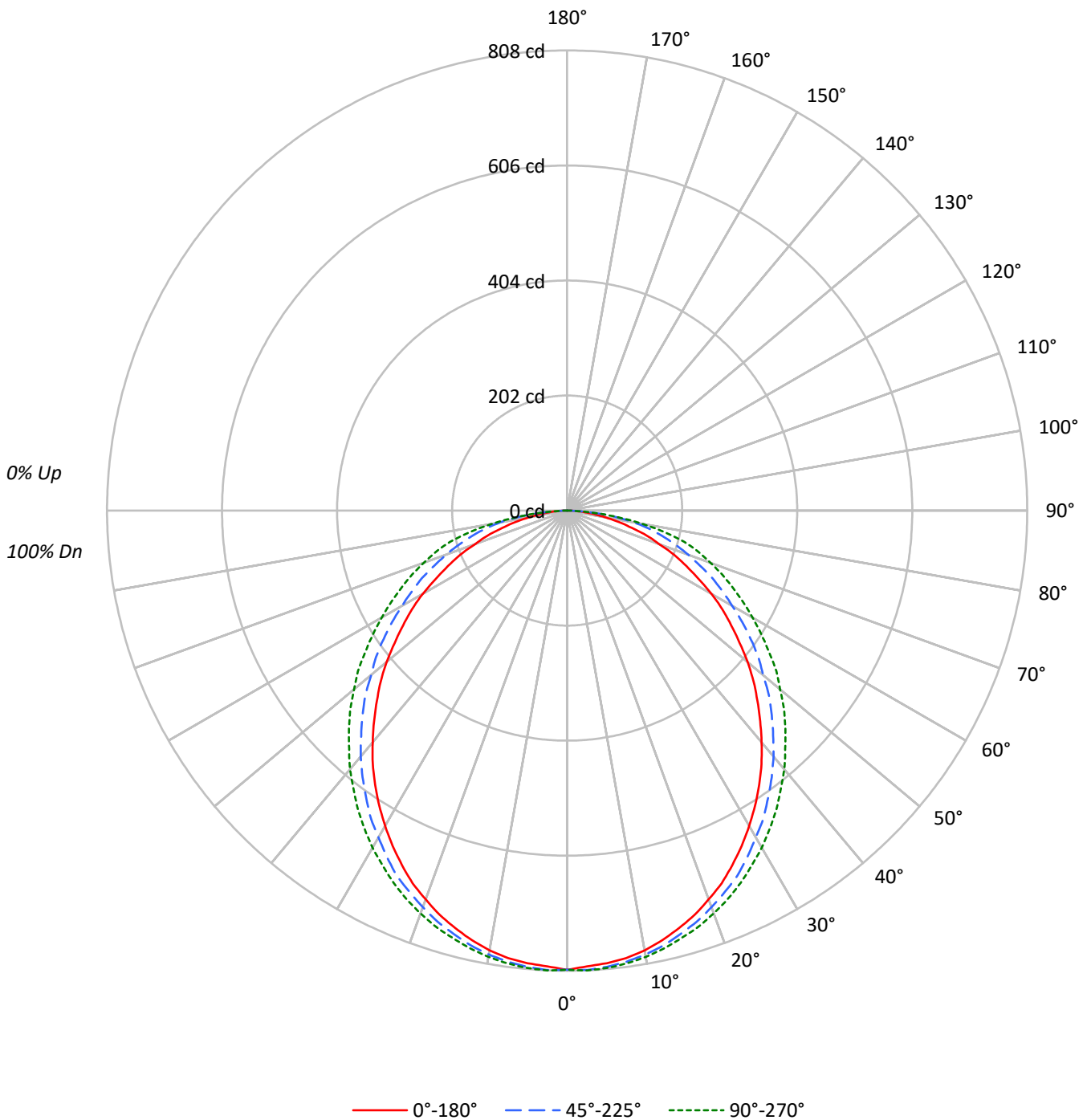
Input Watts (W): 16.275
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P277323

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L83050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P277323

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L83050-W2A1-U-4500K

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°	2169	2169	2169
5°	2155	2172	2178
10°	2143	2163	2174
15°	2115	2144	2164
20°	2080	2123	2155
25°	2039	2101	2141
30°	1986	2058	2124
35°	1931	2021	2104
40°	1866	1980	2083
45°	1798	1934	2062
50°	1732	1881	2044
55°	1650	1847	2029
60°	1576	1802	2023
65°	1471	1791	2045
70°	1355	1776	2106
75°	1223	1801	2216
80°	1057	1855	2083
85°	874	1556	1556



TEST NUMBER: P277323

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L83050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.2	3.4
10°-20°	217.0	9.6
20°-30°	324.7	14.4
30°-40°	384.5	17.1
40°-50°	391.8	17.4
50°-60°	351.2	15.6
60°-70°	274.9	12.2
70°-80°	177.3	7.9
80°-90°	52.4	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°	617.9	27.5
0°-40°	1002.4	44.5
0°-60°	1745.4	77.6
0°-90°	2250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2250.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	806	806	806	806	806	
5°	798	800	804	805	806	76
15°	759	763	770	776	777	214
25°	687	693	708	717	721	316
35°	588	595	615	634	640	367
45°	472	483	508	534	542	365
55°	352	363	394	421	432	315
65°	231	245	281	309	321	229
75°	118	135	173	203	213	126
85°	28	39	50	50	50	33
90°	0	0	0	0	0	



TEST NUMBER: P277323

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L83050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	806.2	806.2	806.2	806.2	806.2
2.5°	801.0	803.1	807.3	808.3	808.3
5°	797.8	799.9	804.1	805.2	806.2
7.5°	792.6	793.6	798.9	801.0	802.0
10°	784.2	786.3	791.5	794.7	795.7
12.5°	772.7	775.8	782.1	786.3	787.3
15°	759.0	763.2	769.5	775.8	776.9
17.5°	744.3	748.5	756.9	764.3	766.4
20°	726.5	731.7	741.2	749.6	752.7
22.5°	708.6	712.8	724.4	734.9	738.0
25°	686.6	692.9	707.6	717.0	721.2
27.5°	663.5	670.8	685.5	698.1	702.3
30°	639.3	646.7	662.4	678.2	683.4
32.5°	614.1	622.5	641.4	657.2	662.4
35°	587.9	595.2	615.2	634.1	640.4
37.5°	560.6	566.9	590.0	609.9	616.2
40°	531.2	539.6	563.7	586.8	593.1
42.5°	501.8	511.3	535.4	560.6	566.9
45°	472.4	482.9	508.1	534.3	541.7
47.5°	444.1	452.5	480.8	506.0	516.5
50°	413.6	422.0	449.3	477.7	488.2
52.5°	382.1	393.7	423.1	450.4	463.0
55°	351.7	363.2	393.7	421.0	432.5
57.5°	323.3	332.8	364.3	392.6	404.2
60°	292.9	301.3	334.9	365.3	375.8
62.5°	260.3	272.9	307.6	335.9	348.5
65°	231.0	244.6	281.3	308.6	321.2
67.5°	203.7	216.3	252.0	281.3	295.0
70°	172.2	189.0	225.7	255.1	267.7
72.5°	147.0	161.7	199.5	228.9	242.5
75°	117.6	135.4	173.2	202.6	213.1
77.5°	93.4	111.3	147.0	170.1	175.3
80°	68.2	86.1	119.7	131.2	134.4
82.5°	46.2	63.0	86.1	89.2	90.3
85°	28.3	38.8	50.4	50.4	50.4
87.5°	13.6	15.7	17.8	16.8	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)