

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: P277471

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277471
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: 22CZ2-39HE-S-UNV-L92765-W2A1-U-3000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3154.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

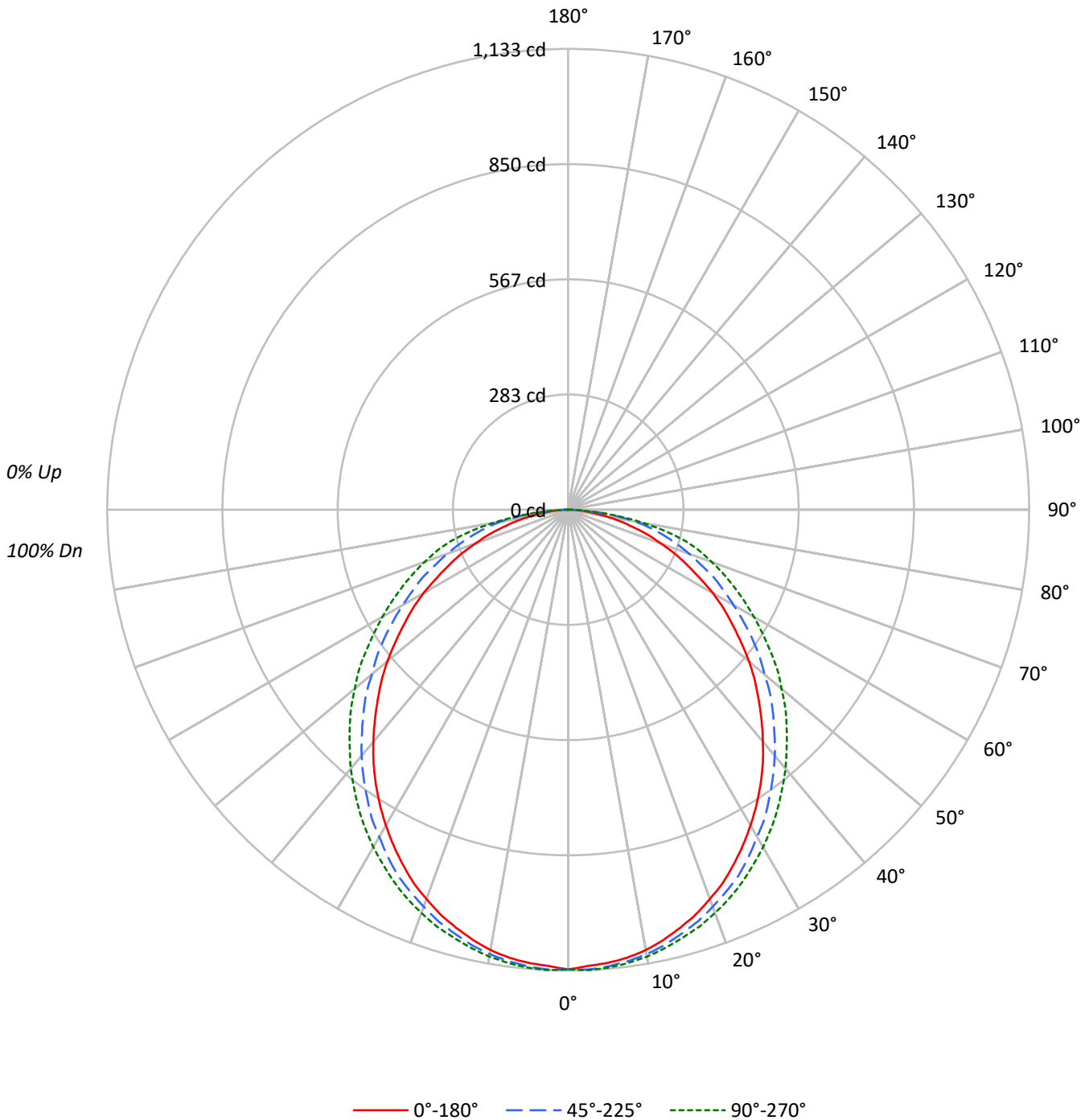
Input Watts (W): 29.853
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3041	3041	3041
5°	3021	3045	3053
10°	3004	3032	3048
15°	2964	3005	3034
20°	2916	2975	3021
25°	2858	2945	3002
30°	2785	2885	2977
35°	2707	2833	2949
40°	2616	2776	2921
45°	2520	2710	2890
50°	2427	2637	2865
55°	2313	2589	2845
60°	2210	2526	2835
65°	2061	2511	2867
70°	1899	2489	2953
75°	1713	2524	3106
80°	1483	2600	2920
85°	1226	2180	2180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.9	3.4
10°-20°	304.2	9.6
20°-30°	455.1	14.4
30°-40°	538.9	17.1
40°-50°	549.3	17.4
50°-60°	492.3	15.6
60°-70°	385.4	12.2
70°-80°	248.5	7.9
80°-90°	73.4	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°	866.1	27.5
0°-40°	1405.1	44.5
0°-60°	2446.6	77.6
0°-90°	3154.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3154.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1118	1121	1127	1129	1130	106
15°	1064	1070	1079	1088	1089	300
25°	962	971	992	1005	1011	443
35°	824	834	862	889	898	515
45°	662	677	712	749	759	511
55°	493	509	552	590	606	442
65°	324	343	394	433	450	322
75°	165	190	243	284	299	177
85°	40	54	71	71	71	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1122.8	1125.8	1131.6	1133.1	1133.1
5°	1118.4	1121.3	1127.2	1128.7	1130.2
7.5°	1111.0	1112.5	1119.9	1122.8	1124.3
10°	1099.3	1102.2	1109.6	1114.0	1115.5
12.5°	1083.1	1087.5	1096.3	1102.2	1103.7
15°	1064.0	1069.8	1078.7	1087.5	1089.0
17.5°	1043.4	1049.2	1061.0	1071.3	1074.3
20°	1018.3	1025.7	1038.9	1050.7	1055.1
22.5°	993.3	999.2	1015.4	1030.1	1034.5
25°	962.4	971.2	991.8	1005.1	1011.0
27.5°	930.0	940.3	960.9	978.6	984.5
30°	896.2	906.5	928.6	950.6	958.0
32.5°	860.9	872.6	899.1	921.2	928.6
35°	824.1	834.4	862.3	888.8	897.7
37.5°	785.8	794.7	827.0	855.0	863.8
40°	744.6	756.4	790.2	822.6	831.4
42.5°	703.4	716.7	750.5	785.8	794.7
45°	662.2	676.9	712.2	749.0	759.3
47.5°	622.5	634.3	674.0	709.3	724.0
50°	579.8	591.6	629.8	669.6	684.3
52.5°	535.7	551.8	593.0	631.3	649.0
55°	493.0	509.2	551.8	590.1	606.3
57.5°	453.2	466.5	510.6	550.4	566.6
60°	410.6	422.3	469.4	512.1	526.8
62.5°	365.0	382.6	431.2	470.9	488.6
65°	323.7	342.9	394.4	432.6	450.3
67.5°	285.5	303.1	353.2	394.4	413.5
70°	241.3	264.9	316.4	357.6	375.3
72.5°	206.0	226.6	279.6	320.8	339.9
75°	164.8	189.8	242.8	284.0	298.7
77.5°	131.0	156.0	206.0	238.4	245.8
80°	95.7	120.7	167.8	183.9	188.4
82.5°	64.7	88.3	120.7	125.1	126.6
85°	39.7	54.4	70.6	70.6	70.6
87.5°	19.1	22.1	25.0	23.5	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)