

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: P229996

Luminaire Tested: **24CZ-LD5-30SE-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-30SE-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2532.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

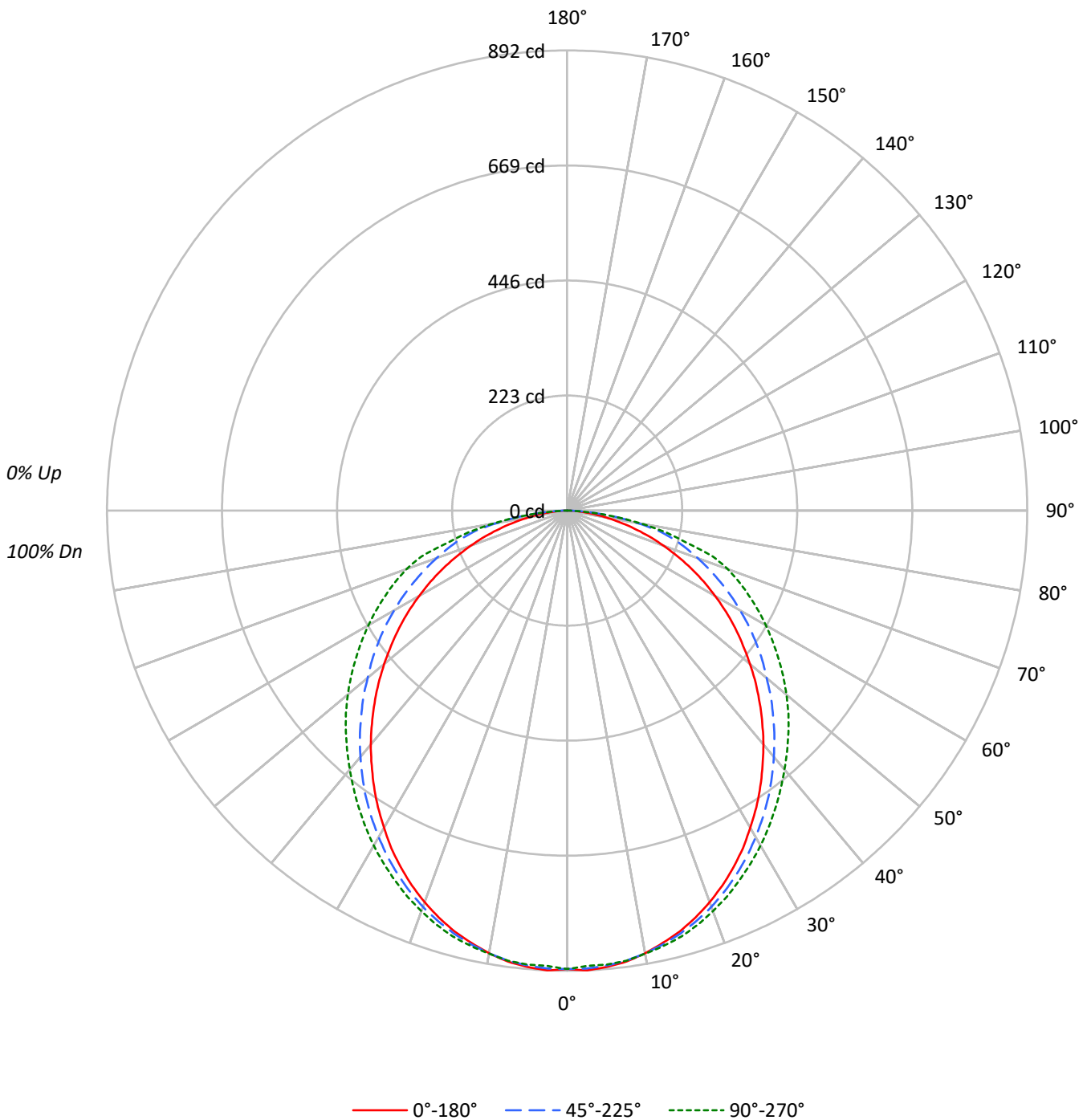
Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1196	1196	1196
5°	1199	1195	1193
10°	1190	1190	1192
15°	1176	1182	1191
20°	1157	1171	1183
25°	1133	1154	1174
30°	1103	1135	1165
35°	1072	1116	1156
40°	1040	1095	1151
45°	1005	1074	1155
50°	969	1056	1161
55°	933	1049	1173
60°	891	1043	1197
65°	845	1043	1237
70°	781	1061	1303
75°	699	1109	1239
80°	584	1062	1135
85°	442	817	777



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	3.3
10°-20°	239.0	9.4
20°-30°	357.3	14.1
30°-40°	423.8	16.7
40°-50°	436.2	17.2
50°-60°	400.2	15.8
60°-70°	323.6	12.8
70°-80°	210.0	8.3
80°-90°	57.9	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°	680.2	26.9
0°-40°	1104.1	43.6
0°-60°	1940.5	76.6
0°-90°	2532.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2532.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	888	882	885	884	883	84
15°	844	841	849	852	855	238
25°	763	764	778	785	791	351
35°	653	658	680	694	704	408
45°	528	537	564	591	607	407
55°	398	410	447	484	500	355
65°	265	281	328	371	388	262
75°	134	160	213	238	238	143
85°	29	48	53	51	50	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	888.6	888.6	888.6	888.6	888.6
2.5°	892.1	885.1	888.6	887.7	883.4
5°	887.7	881.7	885.1	884.3	883.4
7.5°	881.7	875.6	879.9	879.1	879.9
10°	871.3	866.1	871.3	872.1	872.1
12.5°	858.3	853.9	860.9	862.6	864.3
15°	844.4	840.9	848.7	852.2	854.8
17.5°	827.0	824.4	834.0	838.3	841.8
20°	808.0	807.1	817.5	821.8	826.2
22.5°	786.3	786.3	798.4	803.6	809.7
25°	762.9	763.8	777.6	784.6	790.6
27.5°	737.8	738.6	755.1	763.8	770.7
30°	710.0	713.5	730.8	742.1	749.9
32.5°	682.3	686.6	705.7	718.7	727.4
35°	652.8	658.0	679.7	694.4	703.9
37.5°	622.5	628.5	651.9	668.4	679.7
40°	592.1	599.0	623.3	642.4	655.4
42.5°	560.0	567.8	594.7	617.3	631.1
45°	528.0	536.6	564.4	591.2	606.8
47.5°	495.9	506.3	535.8	565.2	581.7
50°	462.9	473.3	504.6	538.4	554.8
52.5°	430.0	442.1	476.8	511.5	528.0
55°	397.9	410.1	447.3	483.7	500.2
57.5°	365.0	377.1	417.9	456.0	472.5
60°	331.2	345.0	387.5	426.5	444.7
62.5°	298.2	313.0	358.0	399.7	417.0
65°	265.3	280.9	327.7	371.0	388.4
67.5°	231.5	249.7	298.2	342.4	360.6
70°	198.5	218.5	269.6	313.8	331.2
72.5°	166.5	188.1	241.0	286.1	296.5
75°	134.4	159.5	213.3	238.4	238.4
77.5°	104.0	131.8	182.1	191.6	196.8
80°	75.4	105.8	137.0	148.2	146.5
82.5°	50.3	80.6	98.0	98.0	95.4
85°	28.6	48.5	52.9	51.1	50.3
87.5°	12.1	18.2	16.5	13.0	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)