

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: P230068

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-30SE-S-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2583.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

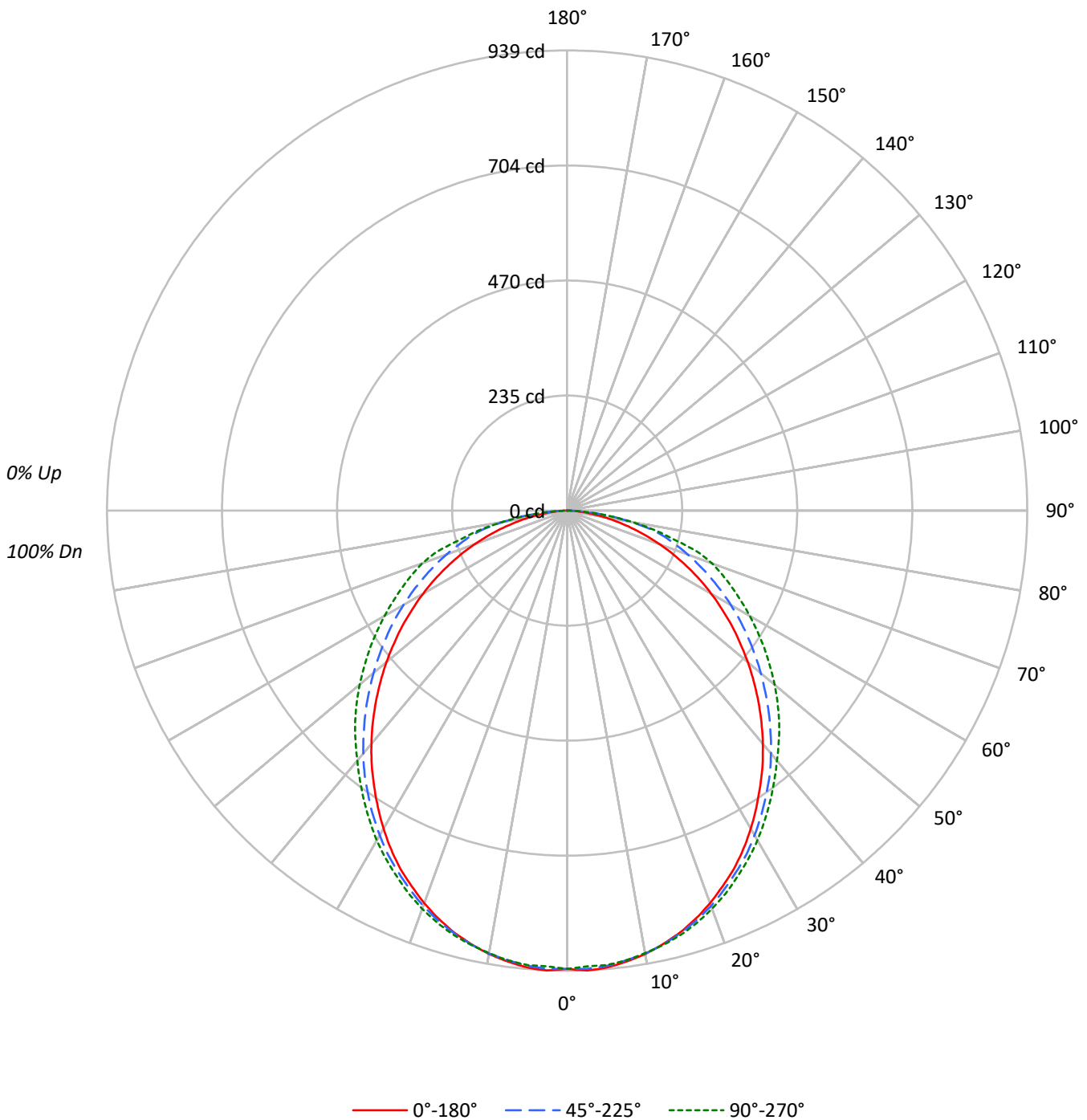
Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91		93	90	88		89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53		64	58	52		62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46		57	51	45		55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1258	1258	1258
5°	1264	1259	1257
10°	1255	1254	1253
15°	1242	1244	1249
20°	1221	1229	1238
25°	1197	1210	1222
30°	1164	1188	1207
35°	1128	1163	1187
40°	1091	1137	1170
45°	1050	1107	1164
50°	1007	1079	1157
55°	964	1057	1153
60°	914	1038	1159
65°	859	1026	1182
70°	791	1031	1238
75°	701	1068	1153
80°	586	1012	1039
85°	438	809	743



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	3.4
10°-20°	251.4	9.7
20°-30°	374.7	14.5
30°-40°	441.1	17.1
40°-50°	448.2	17.4
50°-60°	403.0	15.6
60°-70°	318.4	12.3
70°-80°	202.0	7.8
80°-90°	55.7	2.2
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°	714.6	27.7
0°-40°	1155.6	44.7
0°-60°	2006.9	77.7
0°-90°	2583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2583.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	936	928	932	931	931	89
15°	891	887	893	896	896	251
25°	806	805	815	820	823	371
35°	687	691	708	716	723	430
45°	552	560	582	599	612	426
55°	411	421	450	480	492	367
65°	270	284	322	358	371	267
75°	135	158	205	224	222	144
85°	28	49	52	48	48	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.1	935.1	935.1	935.1	935.1
2.5°	939.4	932.5	936.0	934.2	930.8
5°	936.0	928.2	932.5	930.8	930.8
7.5°	928.2	922.2	925.6	924.8	925.6
10°	918.8	912.7	917.9	917.9	917.0
12.5°	905.9	900.7	906.7	906.7	907.6
15°	891.3	887.0	893.0	895.6	896.4
17.5°	873.2	868.9	876.7	879.2	881.8
20°	852.6	850.9	858.6	861.2	864.6
22.5°	829.4	829.4	837.1	840.6	845.7
25°	806.2	805.3	814.8	819.9	823.4
27.5°	778.7	779.5	791.6	796.7	801.0
30°	749.4	751.2	764.9	770.9	777.0
32.5°	718.5	721.9	737.4	744.3	750.3
35°	686.7	691.0	708.2	715.9	722.8
37.5°	654.9	660.9	679.0	686.7	694.4
40°	621.4	626.5	647.2	656.6	666.1
42.5°	587.0	593.9	614.5	628.3	639.4
45°	551.8	559.5	581.9	599.0	611.9
47.5°	516.5	526.8	548.3	571.5	582.7
50°	481.3	491.6	515.7	541.5	552.6
52.5°	445.2	455.5	483.0	509.7	521.7
55°	410.8	421.1	450.4	479.6	491.6
57.5°	374.7	385.9	418.6	448.6	460.7
60°	339.5	350.7	385.9	417.7	430.6
62.5°	305.1	317.1	354.1	387.6	400.5
65°	269.9	283.6	322.3	357.5	371.3
67.5°	235.5	251.0	291.4	328.3	342.9
70°	201.1	219.2	262.1	300.0	314.6
72.5°	167.6	187.4	232.9	270.7	278.5
75°	134.9	158.1	205.4	223.5	221.7
77.5°	104.0	129.8	174.5	177.9	183.1
80°	75.6	104.0	130.6	137.5	134.1
82.5°	49.8	78.2	93.7	90.2	89.4
85°	28.4	49.0	52.4	48.1	48.1
87.5°	12.0	19.8	17.2	12.9	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)