

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: P229999

Luminaire Tested: **24CZ-LD5-30SE-UNV-L950-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229999  
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-L950-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (84) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2934.0 lumens  
Efficiency: N/A  
Efficacy: 124.9 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

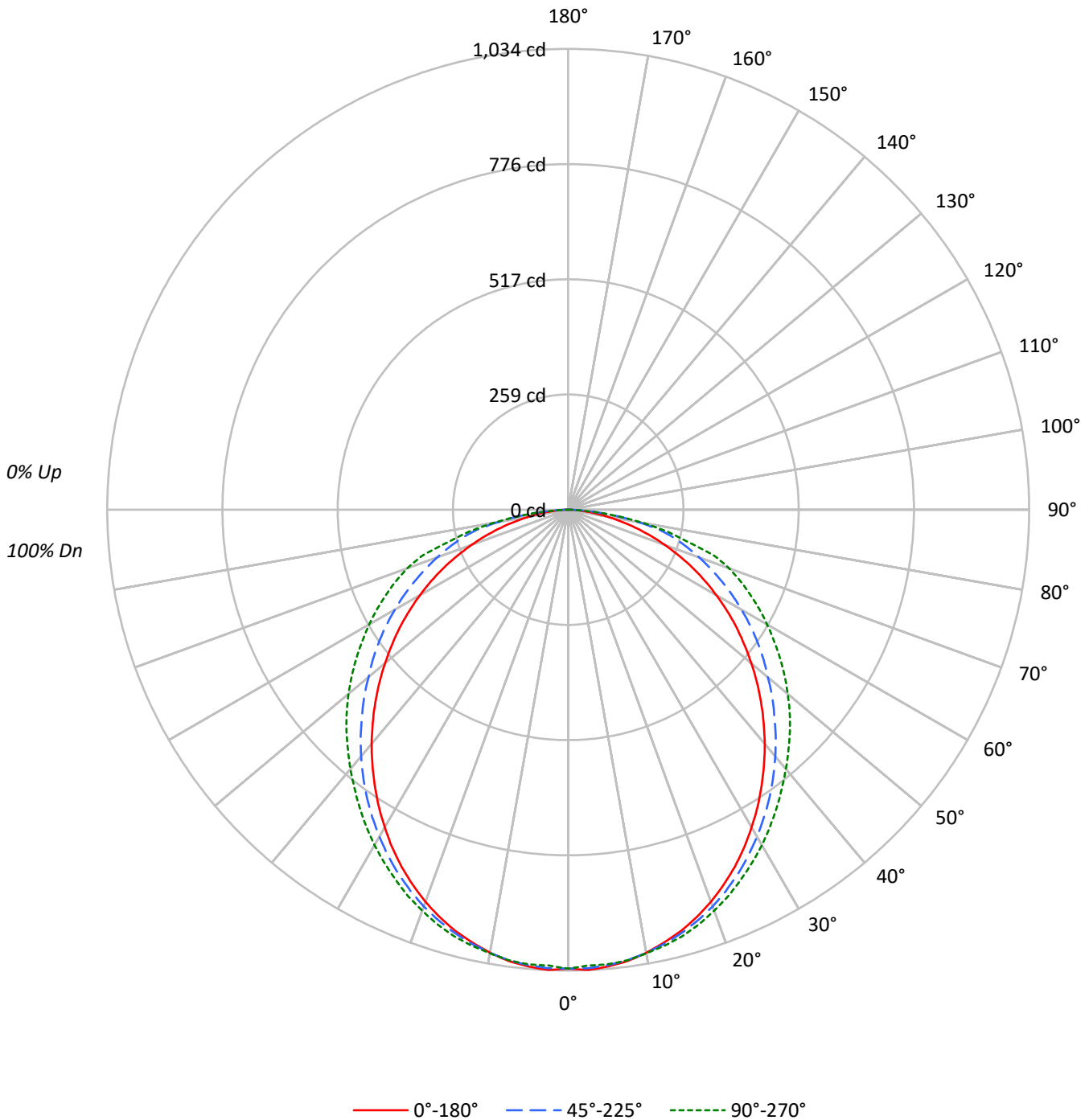
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1385	1385	1385
5°	1389	1385	1383
10°	1379	1379	1381
15°	1363	1370	1380
20°	1341	1356	1371
25°	1312	1338	1360
30°	1278	1316	1350
35°	1242	1294	1340
40°	1205	1269	1334
45°	1164	1244	1338
50°	1123	1224	1346
55°	1082	1216	1360
60°	1033	1208	1387
65°	979	1209	1433
70°	905	1229	1509
75°	809	1285	1436
80°	677	1230	1316
85°	513	946	900



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.3	3.3
10°-20°	276.9	9.4
20°-30°	414.0	14.1
30°-40°	491.1	16.7
40°-50°	505.5	17.2
50°-60°	463.7	15.8
60°-70°	374.9	12.8
70°-80°	243.3	8.3
80°-90°	67.1	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°	788.2	26.9
0°-40°	1279.4	43.6
0°-60°	2248.6	76.6
0°-90°	2934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2934.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1029	1022	1026	1025	1024	98
15°	978	974	984	988	990	276
25°	884	885	901	909	916	407
35°	756	762	788	805	816	473
45°	612	622	654	685	703	472
55°	461	475	518	560	580	412
65°	307	326	380	430	450	304
75°	156	185	247	276	276	165
85°	33	56	61	59	58	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1029.7	1029.7	1029.7	1029.7	1029.7
2.5°	1033.7	1025.7	1029.7	1028.7	1023.7
5°	1028.7	1021.6	1025.7	1024.7	1023.7
7.5°	1021.6	1014.6	1019.6	1018.6	1019.6
10°	1009.6	1003.6	1009.6	1010.6	1010.6
12.5°	994.5	989.5	997.5	999.5	1001.6
15°	978.4	974.4	983.5	987.5	990.5
17.5°	958.4	955.3	966.4	971.4	975.4
20°	936.3	935.3	947.3	952.3	957.4
22.5°	911.1	911.1	925.2	931.2	938.3
25°	884.0	885.0	901.1	909.1	916.2
27.5°	854.9	855.9	875.0	885.0	893.1
30°	822.7	826.8	846.9	859.9	869.0
32.5°	790.6	795.6	817.7	832.8	842.8
35°	756.4	762.5	787.6	804.7	815.7
37.5°	721.3	728.3	755.4	774.5	787.6
40°	686.1	694.2	722.3	744.4	759.5
42.5°	649.0	658.0	689.1	715.3	731.3
45°	611.8	621.8	654.0	685.1	703.2
47.5°	574.6	586.7	620.8	655.0	674.1
50°	536.4	548.5	584.7	623.8	642.9
52.5°	498.3	512.3	552.5	592.7	611.8
55°	461.1	475.2	518.4	560.5	579.6
57.5°	422.9	437.0	484.2	528.4	547.5
60°	383.7	399.8	449.0	494.2	515.3
62.5°	345.6	362.6	414.9	463.1	483.2
65°	307.4	325.5	379.7	430.0	450.0
67.5°	268.2	289.3	345.6	396.8	417.9
70°	230.0	253.2	312.4	363.7	383.7
72.5°	192.9	218.0	279.3	331.5	343.6
75°	155.7	184.8	247.1	276.3	276.3
77.5°	120.5	152.7	211.0	222.0	228.0
80°	87.4	122.6	158.7	171.8	169.8
82.5°	58.3	93.4	113.5	113.5	110.5
85°	33.2	56.3	61.3	59.3	58.3
87.5°	14.1	21.1	19.1	15.1	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)