

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: P229997

Luminaire Tested: **24CZ-LD5-30SE-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229997
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-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2632.0 lumens
Efficiency: N/A
Efficacy: 112.0 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

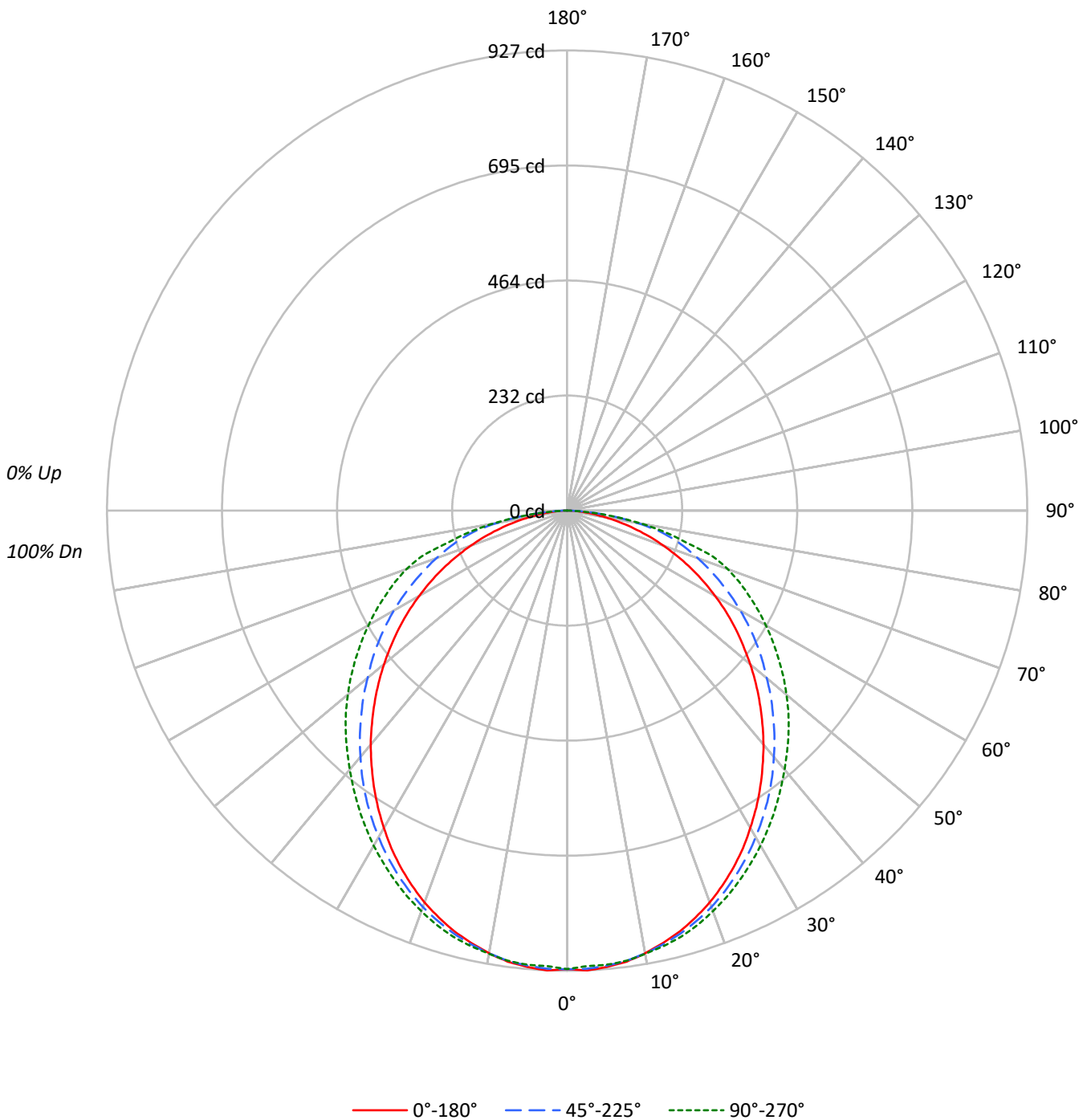
Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1243	1243	1243
5°	1246	1243	1240
10°	1237	1237	1239
15°	1223	1229	1238
20°	1203	1217	1230
25°	1177	1200	1220
30°	1147	1180	1211
35°	1115	1160	1202
40°	1081	1138	1197
45°	1044	1116	1200
50°	1007	1098	1207
55°	970	1091	1220
60°	926	1084	1244
65°	878	1084	1285
70°	812	1103	1354
75°	726	1153	1288
80°	607	1103	1180
85°	459	849	807



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	3.3
10°-20°	248.4	9.4
20°-30°	371.4	14.1
30°-40°	440.6	16.7
40°-50°	453.5	17.2
50°-60°	416.0	15.8
60°-70°	336.4	12.8
70°-80°	218.3	8.3
80°-90°	60.2	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°	707.1	26.9
0°-40°	1147.7	43.6
0°-60°	2017.2	76.6
0°-90°	2632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	923	916	920	919	918	88
15°	878	874	882	886	888	247
25°	793	794	808	816	822	365
35°	679	684	706	722	732	424
45°	549	558	587	615	631	424
55°	414	426	465	503	520	370
65°	276	292	341	386	404	273
75°	140	166	222	248	248	148
85°	30	50	55	53	52	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	923.7	923.7	923.7	923.7	923.7
2.5°	927.3	920.1	923.7	922.8	918.3
5°	922.8	916.5	920.1	919.2	918.3
7.5°	916.5	910.2	914.7	913.8	914.7
10°	905.7	900.3	905.7	906.6	906.6
12.5°	892.2	887.6	894.9	896.7	898.5
15°	877.7	874.1	882.2	885.8	888.5
17.5°	859.7	857.0	866.9	871.4	875.0
20°	839.9	839.0	849.8	854.3	858.8
22.5°	817.4	817.4	830.0	835.4	841.7
25°	793.0	793.9	808.3	815.6	821.9
27.5°	766.9	767.8	784.9	793.9	801.1
30°	738.1	741.7	759.7	771.4	779.5
32.5°	709.2	713.7	733.5	747.1	756.1
35°	678.6	684.0	706.5	721.8	731.7
37.5°	647.0	653.3	677.7	694.8	706.5
40°	615.5	622.7	647.9	667.8	681.3
42.5°	582.2	590.3	618.2	641.6	656.0
45°	548.8	557.8	586.7	614.6	630.8
47.5°	515.5	526.3	556.9	587.6	604.7
50°	481.2	492.0	524.5	559.6	576.7
52.5°	447.0	459.6	495.6	531.7	548.8
55°	413.6	426.3	465.0	502.9	520.0
57.5°	379.4	392.0	434.4	474.0	491.1
60°	344.2	358.7	402.8	443.4	462.3
62.5°	310.0	325.3	372.2	415.4	433.5
65°	275.8	292.0	340.6	385.7	403.7
67.5°	240.6	259.5	310.0	356.0	374.9
70°	206.4	227.1	280.3	326.2	344.2
72.5°	173.0	195.6	250.5	297.4	308.2
75°	139.7	165.8	221.7	247.8	247.8
77.5°	108.1	137.0	189.2	199.2	204.6
80°	78.4	109.9	142.4	154.1	152.3
82.5°	52.3	83.8	101.8	101.8	99.1
85°	29.7	50.5	55.0	53.2	52.3
87.5°	12.6	18.9	17.1	13.5	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)