

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: P345084

Luminaire Tested: **24CZ-35SE-L840-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345084  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-35SE-L840-HRP-UNV-CD1-U  
Description: CRUZE 2X4 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3057.5 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

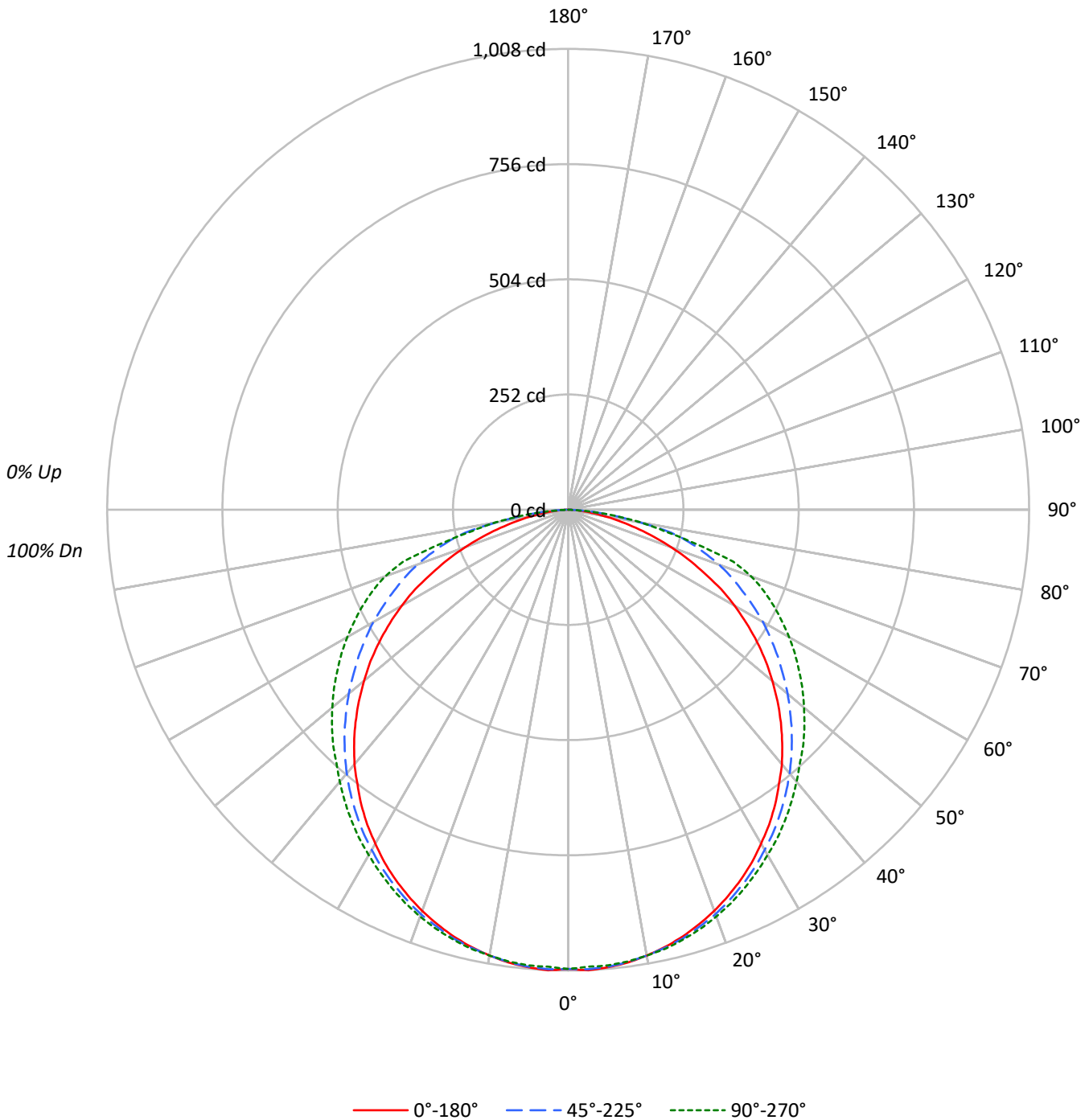
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1352	1352	1352
5°	1357	1355	1351
10°	1353	1353	1353
15°	1346	1352	1355
20°	1337	1348	1356
25°	1326	1342	1355
30°	1310	1335	1355
35°	1295	1329	1360
40°	1277	1323	1364
45°	1251	1316	1383
50°	1220	1311	1409
55°	1183	1312	1447
60°	1131	1325	1501
65°	1046	1338	1576
70°	943	1381	1675
75°	796	1423	1498
80°	619	1218	1258
85°	445	829	729



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.2	3.1
10°-20°	273.4	8.9
20°-30°	415.8	13.6
30°-40°	505.2	16.5
40°-50°	533.2	17.4
50°-60°	501.0	16.4
60°-70°	412.5	13.5
70°-80°	259.8	8.5
80°-90°	61.4	2.0
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°	784.4	25.7
0°-40°	1289.6	42.2
0°-60°	2323.8	76.0
0°-90°	3057.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3057.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	1005	999	1003	1002	1001	95
15°	967	963	970	973	973	273
25°	893	892	904	909	913	411
35°	788	792	809	820	828	493
45°	658	668	692	711	727	507
55°	504	523	559	598	617	450
65°	329	360	420	474	495	326
75°	153	200	274	299	288	164
85°	29	48	54	50	47	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1004.6	1004.6	1004.6	1004.6	1004.6
2.5°	1008.5	1001.9	1005.9	1004.6	1000.6
5°	1004.6	999.3	1003.3	1001.9	1000.6
7.5°	999.3	994.1	998.0	996.7	996.7
10°	990.2	986.2	990.2	990.2	990.2
12.5°	979.7	975.7	981.0	982.3	983.6
15°	966.6	962.7	970.5	973.1	973.1
17.5°	950.9	948.2	956.1	958.7	961.3
20°	933.8	932.5	941.7	944.3	946.9
22.5°	914.2	914.2	923.4	926.0	931.2
25°	893.2	891.9	903.7	909.0	912.9
27.5°	869.7	869.7	882.8	889.3	893.2
30°	843.5	846.1	859.2	867.0	872.3
32.5°	817.3	819.9	835.6	844.8	851.3
35°	788.5	792.4	809.4	819.9	827.7
37.5°	757.0	763.6	781.9	793.7	802.9
40°	726.9	732.1	753.1	766.2	776.7
42.5°	692.8	702.0	723.0	738.7	750.5
45°	657.5	668.0	691.5	711.2	726.9
47.5°	620.8	633.9	658.8	685.0	700.7
50°	582.8	597.2	626.1	657.5	673.2
52.5°	544.8	560.6	592.0	628.7	645.7
55°	504.2	522.6	559.3	598.5	616.9
57.5°	462.3	483.3	525.2	569.7	588.1
60°	420.4	442.7	492.5	537.0	557.9
62.5°	377.2	402.1	455.8	506.9	526.5
65°	328.7	360.2	420.4	474.1	495.1
67.5°	284.2	317.0	386.4	440.1	462.3
70°	239.7	277.7	351.0	404.7	425.7
72.5°	195.1	239.7	311.7	366.7	378.5
75°	153.2	200.4	273.7	298.6	288.1
77.5°	112.6	165.0	230.5	217.4	214.8
80°	79.9	131.0	157.2	158.5	162.4
82.5°	51.1	96.9	102.2	103.5	104.8
85°	28.8	48.5	53.7	49.8	47.2
87.5°	13.1	15.7	13.1	9.2	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)