

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: P474520

Luminaire Tested: **24CZ2-35HE-HRP-UNV-L850-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474520  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35HE-HRP-UNV-L850-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3042.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

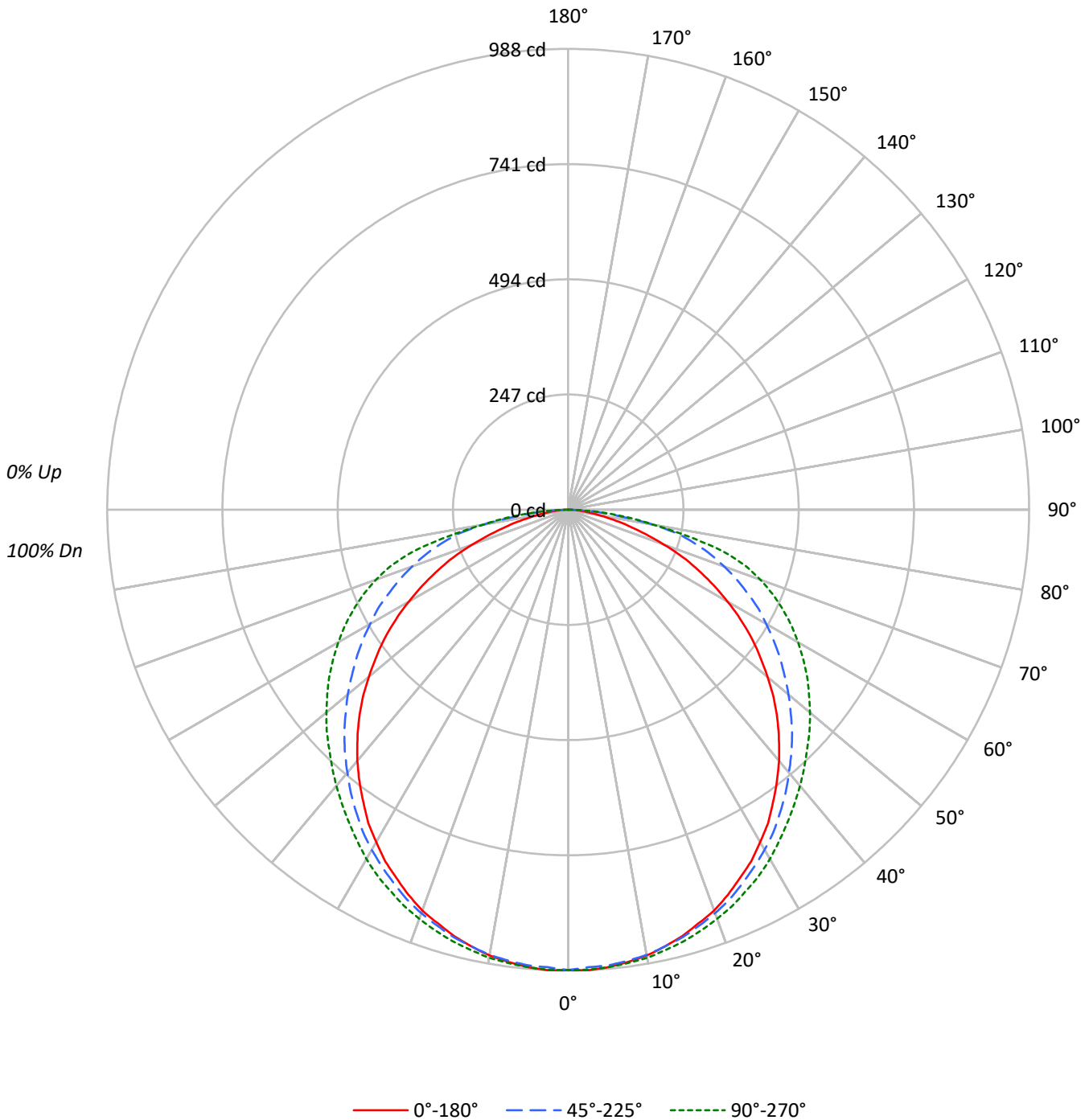
Input Watts (W): 27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

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

	0°	45°	90°
0°	1328	1328	1328
5°	1330	1324	1330
10°	1326	1324	1333
15°	1318	1322	1334
20°	1309	1318	1337
25°	1293	1312	1339
30°	1278	1308	1344
35°	1257	1301	1345
40°	1235	1293	1358
45°	1207	1292	1379
50°	1168	1290	1416
55°	1126	1299	1467
60°	1062	1319	1532
65°	981	1350	1618
70°	857	1398	1723
75°	695	1470	1781
80°	514	1441	1441
85°	394	1062	1198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.5	3.1
10°-20°	268.5	8.8
20°-30°	408.7	13.4
30°-40°	496.3	16.3
40°-50°	524.4	17.2
50°-60°	494.8	16.3
60°-70°	411.4	13.5
70°-80°	270.7	8.9
80°-90°	73.8	2.4
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°	770.7	25.3
0°-40°	1267.0	41.7
0°-60°	2286.2	75.2
0°-90°	3042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3042.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	987	987	987	987	987	
5°	984	984	981	984	984	94
15°	946	948	949	958	958	267
25°	871	876	884	899	902	402
35°	765	774	792	812	819	479
45°	634	647	679	712	725	488
55°	480	500	554	606	625	428
65°	308	344	424	486	508	305
75°	134	195	283	335	343	144
85°	26	56	69	76	78	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	987.0	987.0	987.0	987.0	987.0
2.5°	988.3	987.0	981.9	987.0	987.0
5°	984.5	984.5	980.6	984.5	984.5
7.5°	978.1	978.1	975.5	980.6	980.6
10°	970.4	970.4	969.2	975.5	975.5
12.5°	959.0	960.2	959.0	966.6	966.6
15°	946.2	947.5	948.8	957.7	957.7
17.5°	929.7	932.2	934.8	944.9	946.2
20°	914.4	915.6	920.7	932.2	933.5
22.5°	894.0	897.8	904.2	915.6	919.5
25°	871.0	876.1	883.8	899.1	901.6
27.5°	849.5	853.3	863.5	880.1	885.2
30°	822.7	829.1	841.8	858.4	864.8
32.5°	797.2	803.6	818.9	836.7	841.8
35°	765.4	774.3	792.1	812.5	818.9
37.5°	734.8	743.7	765.4	788.3	796.0
40°	702.9	713.1	736.1	762.8	773.0
42.5°	668.6	682.6	708.0	737.3	748.8
45°	634.2	647.0	678.8	711.8	724.6
47.5°	597.3	612.6	647.0	686.5	701.8
50°	557.9	576.9	616.4	659.7	676.3
52.5°	518.4	540.0	584.5	632.9	650.8
55°	480.1	500.5	553.9	606.2	625.3
57.5°	438.1	463.6	522.2	578.1	597.3
60°	394.7	422.8	490.3	548.8	569.2
62.5°	351.5	383.4	459.7	518.4	540.0
65°	308.2	343.9	424.1	486.5	508.2
67.5°	266.1	305.6	390.9	453.4	475.0
70°	217.8	267.4	355.3	416.4	438.1
72.5°	173.2	230.6	320.9	378.3	397.4
75°	133.7	194.9	282.7	334.9	342.6
77.5°	98.0	159.2	243.2	261.0	262.3
80°	66.3	127.3	186.0	183.4	186.0
82.5°	43.3	95.5	117.1	131.2	132.4
85°	25.5	56.1	68.8	76.5	77.6
87.5°	12.7	19.1	24.2	25.5	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)