

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: P474462

Luminaire Tested: **24CZ2-35-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474462
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-HRP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

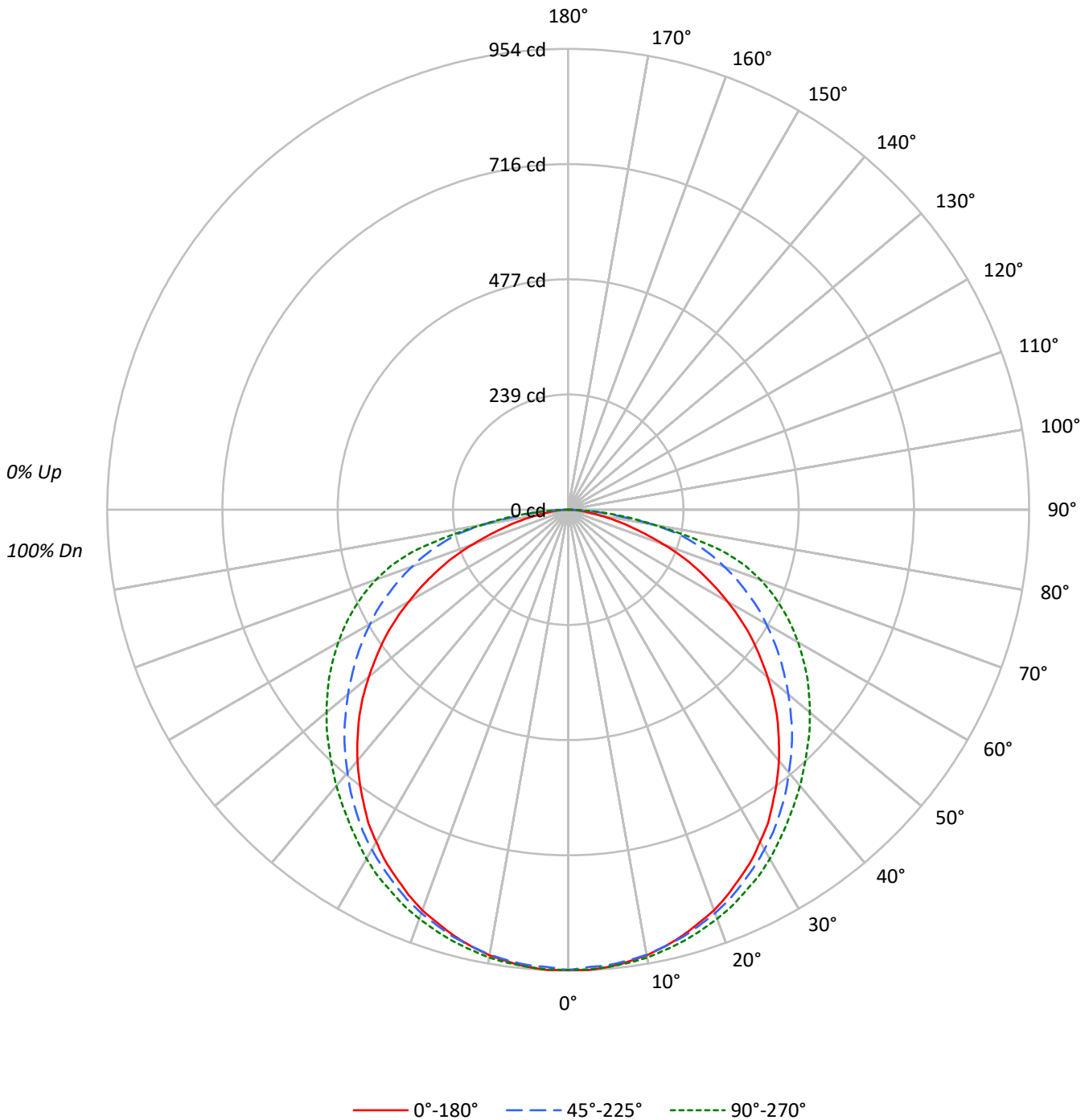
Lumens per Lamp: N/A
Luminaire Lumens: 2936.3 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
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°	1282	1282	1282
5°	1284	1278	1284
10°	1280	1278	1286
15°	1272	1276	1288
20°	1264	1272	1290
25°	1248	1266	1292
30°	1234	1262	1297
35°	1214	1256	1298
40°	1192	1248	1311
45°	1165	1247	1331
50°	1127	1245	1366
55°	1087	1254	1416
60°	1025	1274	1479
65°	947	1303	1562
70°	827	1349	1664
75°	671	1419	1719
80°	496	1391	1391
85°	380	1025	1156



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.2	3.1
10°-20°	259.2	8.8
20°-30°	394.5	13.4
30°-40°	479.1	16.3
40°-50°	506.1	17.2
50°-60°	477.6	16.3
60°-70°	397.1	13.5
70°-80°	261.2	8.9
80°-90°	71.2	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°	744.0	25.3
0°-40°	1223.0	41.7
0°-60°	2206.8	75.2
0°-90°	2936.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2936.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	950	950	946	950	950	90
15°	913	915	916	924	924	258
25°	841	846	853	868	870	388
35°	739	747	765	784	790	462
45°	612	624	655	687	700	471
55°	463	483	535	585	604	413
65°	298	332	409	470	490	294
75°	129	188	273	323	331	139
85°	25	54	66	74	75	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.7	952.7	952.7	952.7	952.7
2.5°	954.0	952.7	947.8	952.7	952.7
5°	950.3	950.3	946.5	950.3	950.3
7.5°	944.1	944.1	941.6	946.5	946.5
10°	936.7	936.7	935.5	941.6	941.6
12.5°	925.7	926.8	925.7	933.0	933.0
15°	913.3	914.6	915.8	924.4	924.4
17.5°	897.4	899.8	902.3	912.1	913.3
20°	882.7	883.8	888.7	899.8	901.1
22.5°	863.0	866.6	872.8	883.8	887.6
25°	840.8	845.7	853.1	867.9	870.3
27.5°	820.0	823.6	833.5	849.5	854.4
30°	794.1	800.3	812.5	828.5	834.7
32.5°	769.5	775.7	790.4	807.6	812.5
35°	738.8	747.4	764.6	784.3	790.4
37.5°	709.3	717.9	738.8	760.9	768.4
40°	678.5	688.4	710.6	736.3	746.2
42.5°	645.3	658.8	683.4	711.7	722.8
45°	612.2	624.5	655.2	687.1	699.5
47.5°	576.6	591.3	624.5	662.6	677.4
50°	538.5	556.9	595.0	636.8	652.8
52.5°	500.4	521.2	564.2	610.9	628.2
55°	463.4	483.1	534.7	585.2	603.6
57.5°	422.9	447.5	504.0	558.0	576.6
60°	381.0	408.2	473.3	529.8	549.5
62.5°	339.3	370.0	443.7	500.4	521.2
65°	297.5	331.9	409.4	469.6	490.5
67.5°	256.9	295.0	377.4	437.7	458.5
70°	210.2	258.1	342.9	402.0	422.9
72.5°	167.2	222.6	309.7	365.1	383.5
75°	129.1	188.1	272.9	323.2	330.7
77.5°	94.6	153.7	234.8	252.0	253.2
80°	64.0	122.9	179.5	177.0	179.5
82.5°	41.8	92.2	113.0	126.7	127.8
85°	24.6	54.1	66.4	73.8	74.9
87.5°	12.2	18.4	23.3	24.6	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)