

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: P475403

Luminaire Tested: **14CZ2-60HE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475403
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-S-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

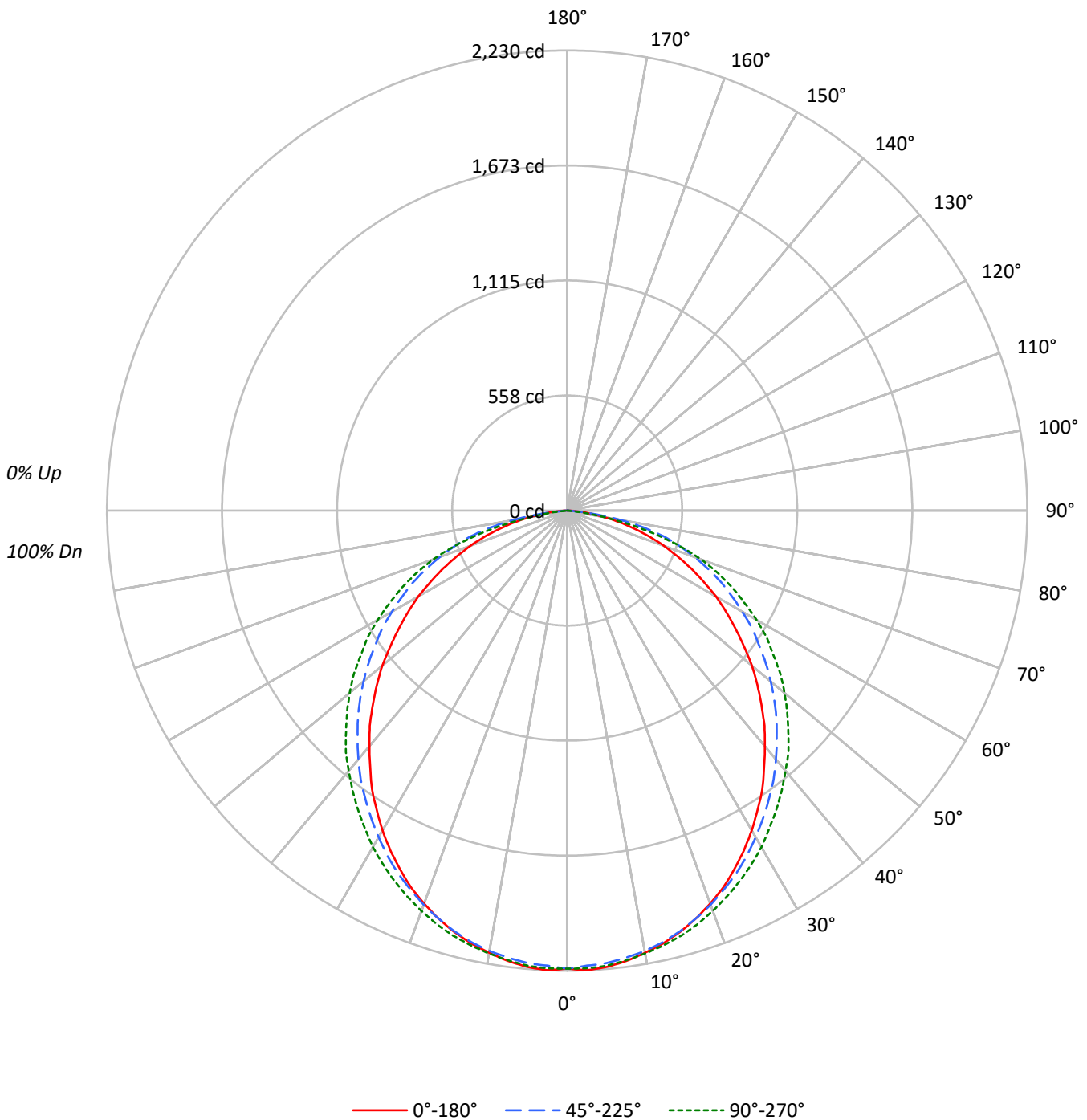
Lumens per Lamp: N/A
Luminaire Lumens: 6205.8 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44.6
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



TEST NUMBER: P475403
CATALOG NUMBER: 14CZ2-60HE-S-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475403

CATALOG NUMBER: 14CZ2-60HE-S-UNV-L840-CD1-U

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	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5974	5974	5974
5°	5997	5947	5980
10°	5947	5922	5956
15°	5890	5881	5942
20°	5804	5822	5911
25°	5694	5759	5879
30°	5561	5678	5852
35°	5419	5603	5808
40°	5236	5532	5784
45°	5067	5458	5767
50°	4895	5391	5757
55°	4667	5325	5720
60°	4480	5269	5706
65°	4209	5242	5619
70°	3925	5152	5422
75°	3468	5057	4572
80°	2803	4107	2706
85°	2022	1155	290



TEST NUMBER: P475403

CATALOG NUMBER: 14CZ2-60HE-S-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.9	3.4
10°-20°	597.8	9.6
20°-30°	896.9	14.5
30°-40°	1069.1	17.2
40°-50°	1103.9	17.8
50°-60°	1005.5	16.2
60°-70°	787.7	12.7
70°-80°	455.8	7.3
80°-90°	79.2	1.3
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°	1704.6	27.5
0°-40°	2773.7	44.7
0°-60°	4883.1	78.7
0°-90°	6205.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6205.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2220	2220	2220	2220	2220	
5°	2220	2214	2201	2217	2214	210
15°	2114	2111	2111	2133	2133	596
25°	1918	1924	1940	1977	1980	883
35°	1650	1665	1706	1759	1768	1029
45°	1331	1366	1434	1500	1515	1028
55°	995	1045	1135	1207	1219	892
65°	661	720	823	876	882	655
75°	334	405	486	471	440	356
85°	66	87	37	12	9	81
90°	0	0	0	0	0	



TEST NUMBER: P475403

CATALOG NUMBER: 14CZ2-60HE-S-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2220.1	2220.1	2220.1	2220.1	2220.1
2.5°	2229.5	2220.1	2207.6	2220.1	2220.1
5°	2220.1	2213.9	2201.4	2217.0	2213.9
7.5°	2201.4	2195.2	2185.8	2201.4	2198.3
10°	2176.5	2173.3	2167.1	2185.8	2179.6
12.5°	2148.4	2145.3	2142.2	2160.9	2157.8
15°	2114.1	2111.0	2111.0	2132.8	2132.8
17.5°	2073.6	2073.6	2073.6	2101.6	2101.6
20°	2026.8	2026.8	2033.0	2064.2	2064.2
22.5°	1976.9	1976.9	1986.3	2020.6	2023.7
25°	1917.7	1923.9	1939.5	1976.9	1980.0
27.5°	1855.3	1864.6	1886.5	1927.0	1933.2
30°	1789.8	1799.2	1827.2	1874.0	1883.4
32.5°	1718.1	1733.7	1768.0	1814.8	1824.1
35°	1649.5	1665.1	1705.6	1758.6	1768.0
37.5°	1568.4	1593.4	1643.3	1693.2	1708.7
40°	1490.5	1518.5	1574.7	1633.9	1646.4
42.5°	1415.6	1440.6	1502.9	1568.4	1587.1
45°	1331.4	1365.7	1434.3	1499.8	1515.4
47.5°	1250.4	1284.7	1362.6	1431.2	1446.8
50°	1169.3	1203.6	1287.8	1356.4	1375.1
52.5°	1078.9	1128.8	1213.0	1281.6	1303.4
55°	994.7	1044.6	1135.0	1206.7	1219.2
57.5°	913.6	963.5	1063.3	1128.8	1147.5
60°	832.5	882.4	979.1	1044.6	1060.2
62.5°	745.2	801.4	901.1	957.3	969.7
65°	661.0	720.3	823.2	876.2	882.4
67.5°	576.9	639.2	739.0	782.7	788.9
70°	498.9	561.3	654.8	695.3	689.1
72.5°	417.8	480.2	570.6	592.4	573.7
75°	333.6	405.4	486.4	470.8	439.7
77.5°	258.8	327.4	380.4	333.6	308.7
80°	180.9	252.6	265.0	205.8	174.6
82.5°	118.5	177.7	143.4	87.3	78.0
85°	65.5	87.3	37.4	12.5	9.4
87.5°	21.8	12.5	6.2	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)