

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: P291459

Luminaire Tested: **14GR-LD5-36-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-36-A19/156-UNV-L93050-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2765.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

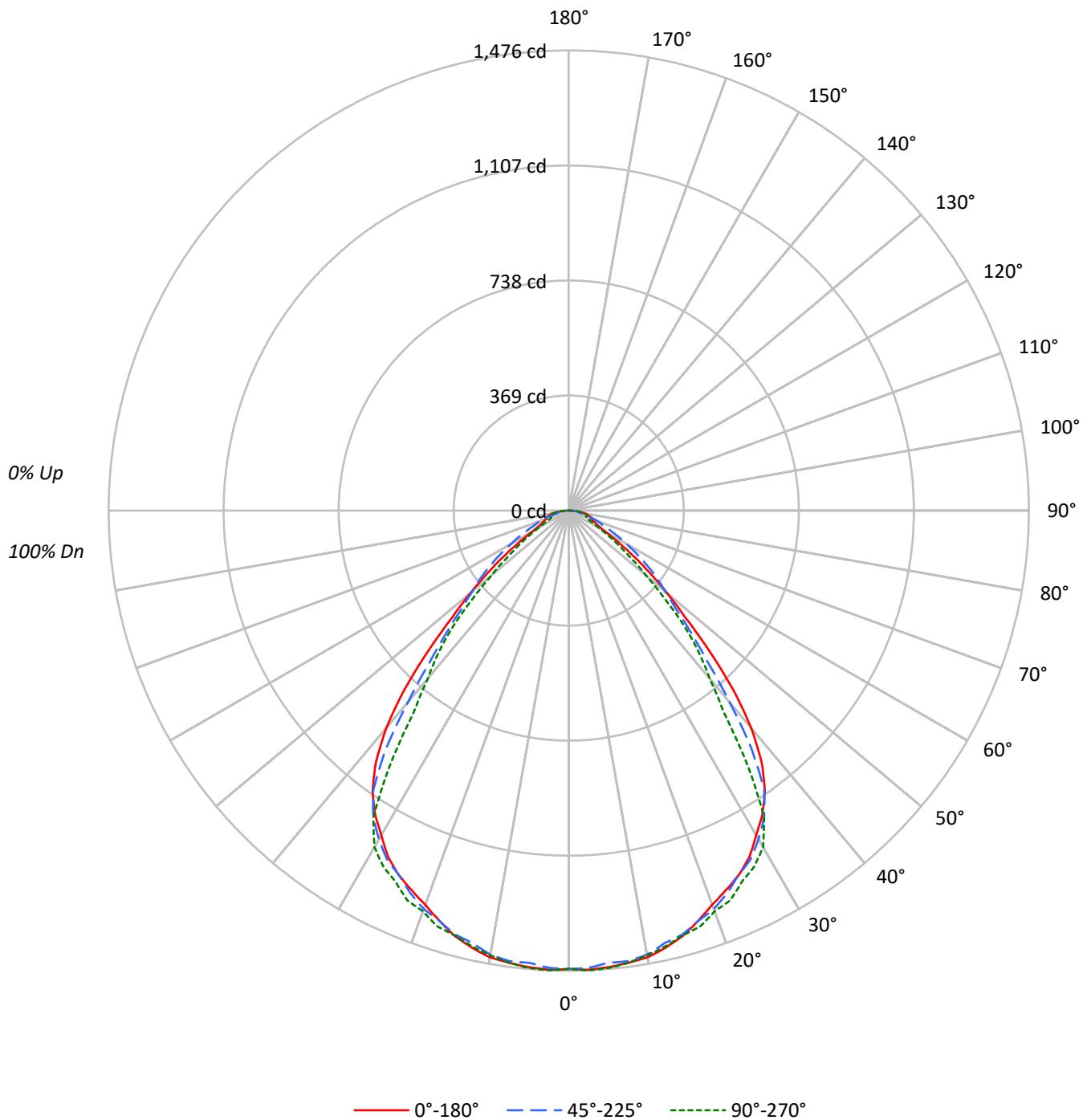
Input Watts (W): 29.946
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	100	108	105	102	99	101	98	96		97	95	93		93
2	103	96	90	86	100	94	89	85	91	87	83		88	84	81		85
3	95	87	80	74	93	85	79	74	82	77	73		80	75	71		77
4	89	79	71	65	87	77	70	65	75	69	64		73	68	63		71
5	83	71	64	58	81	70	63	58	68	62	57		67	61	57		65
6	77	65	58	52	75	64	57	52	63	56	51		61	55	51		60
7	72	60	52	47	70	59	52	47	58	51	46		56	51	46		55
8	67	55	48	43	66	55	47	42	53	47	42		52	46	42		51
9	63	51	44	39	62	51	44	39	50	43	39		49	43	38		48
10	60	48	40	36	58	47	40	36	46	40	35		45	39	35		44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3957	3957	3957
5°	3970	3932	3979
10°	3976	3952	3959
15°	3936	3922	3930
20°	3853	3895	3917
25°	3830	3828	3901
30°	3737	3782	3874
35°	3603	3589	3298
40°	3199	2824	2472
45°	2428	2112	1999
50°	1722	1690	1357
55°	1179	1443	932
60°	729	1151	623
65°	600	886	451
70°	598	772	463
75°	717	553	619
80°	824	510	775
85°	781	898	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	5.0
10°-20°	398.2	14.4
20°-30°	598.8	21.7
30°-40°	652.8	23.6
40°-50°	457.1	16.5
50°-60°	258.7	9.4
60°-70°	141.6	5.1
70°-80°	85.8	3.1
80°-90°	32.5	1.2
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°	1136.5	41.1
0°-40°	1789.3	64.7
0°-60°	2505.1	90.6
0°-90°	2765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1470	1467	1456	1473	1473	140
15°	1413	1409	1408	1428	1411	397
25°	1290	1292	1289	1319	1314	592
35°	1097	1092	1092	1037	1004	676
45°	638	666	555	548	525	495
55°	251	301	308	305	199	230
65°	94	155	139	176	71	97
75°	69	99	53	104	60	72
85°	25	41	29	35	28	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.3	1470.3	1470.3	1470.3	1470.3
2.5°	1474.1	1472.2	1467.8	1476.6	1476.0
5°	1469.7	1467.2	1455.8	1472.9	1472.9
7.5°	1463.4	1457.0	1457.7	1467.2	1462.7
10°	1455.1	1444.4	1446.3	1448.8	1448.8
12.5°	1436.1	1426.0	1421.0	1429.2	1431.7
15°	1412.7	1408.9	1407.7	1427.9	1410.8
17.5°	1379.8	1388.0	1380.4	1396.9	1399.4
20°	1345.6	1361.5	1360.2	1371.6	1367.8
22.5°	1317.8	1327.9	1327.9	1341.8	1353.2
25°	1289.9	1292.5	1289.3	1319.0	1314.0
27.5°	1253.9	1252.0	1262.1	1277.3	1287.4
30°	1202.6	1203.2	1217.1	1237.4	1246.9
32.5°	1155.7	1150.1	1167.1	1176.0	1165.9
35°	1096.9	1091.8	1092.5	1036.8	1003.8
37.5°	1016.5	1020.9	962.7	860.8	817.8
40°	910.8	919.7	803.8	727.9	703.8
42.5°	782.9	785.5	658.9	634.2	618.4
45°	638.0	665.9	555.1	548.1	525.3
47.5°	505.7	557.6	465.2	469.6	415.2
50°	411.4	463.3	403.8	405.7	324.1
52.5°	325.3	376.0	356.3	350.6	254.4
55°	251.3	300.6	307.6	305.1	198.7
57.5°	184.8	238.0	258.2	267.7	153.2
60°	135.4	194.3	213.9	232.9	115.8
62.5°	107.6	168.4	175.3	203.2	89.9
65°	94.3	155.1	139.2	176.0	70.9
67.5°	84.2	147.5	113.3	155.7	62.0
70°	76.0	132.9	98.1	139.2	58.9
72.5°	76.0	116.5	77.2	123.4	59.5
75°	69.0	99.4	53.2	104.4	59.5
77.5°	61.4	84.8	39.9	84.8	55.7
80°	53.2	66.5	32.9	65.2	50.0
82.5°	39.2	50.0	28.5	48.7	40.5
85°	25.3	41.1	29.1	35.4	28.5
87.5°	12.0	20.9	18.4	17.7	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)