

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: P29644

Luminaire Tested: **4SHP4540R**

Test Date: 05/08/17



Test Information

Test Method: LM-79-08
Report Number: P29644
Test Lab: INNOVATION CENTER-P2
Test Date: 05/08/17
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SHP4540R
Description: 4FT LED SHOPLIGHT, 4500 LUMEN, 4000K
Light Source: (180) REFOND 4000K LEDS
RT-40HI32DS-EF-N-Y
Ballast/Driver: (1) 120V ELECTRONIC DRIVER
3200LM SHOPLIGHT

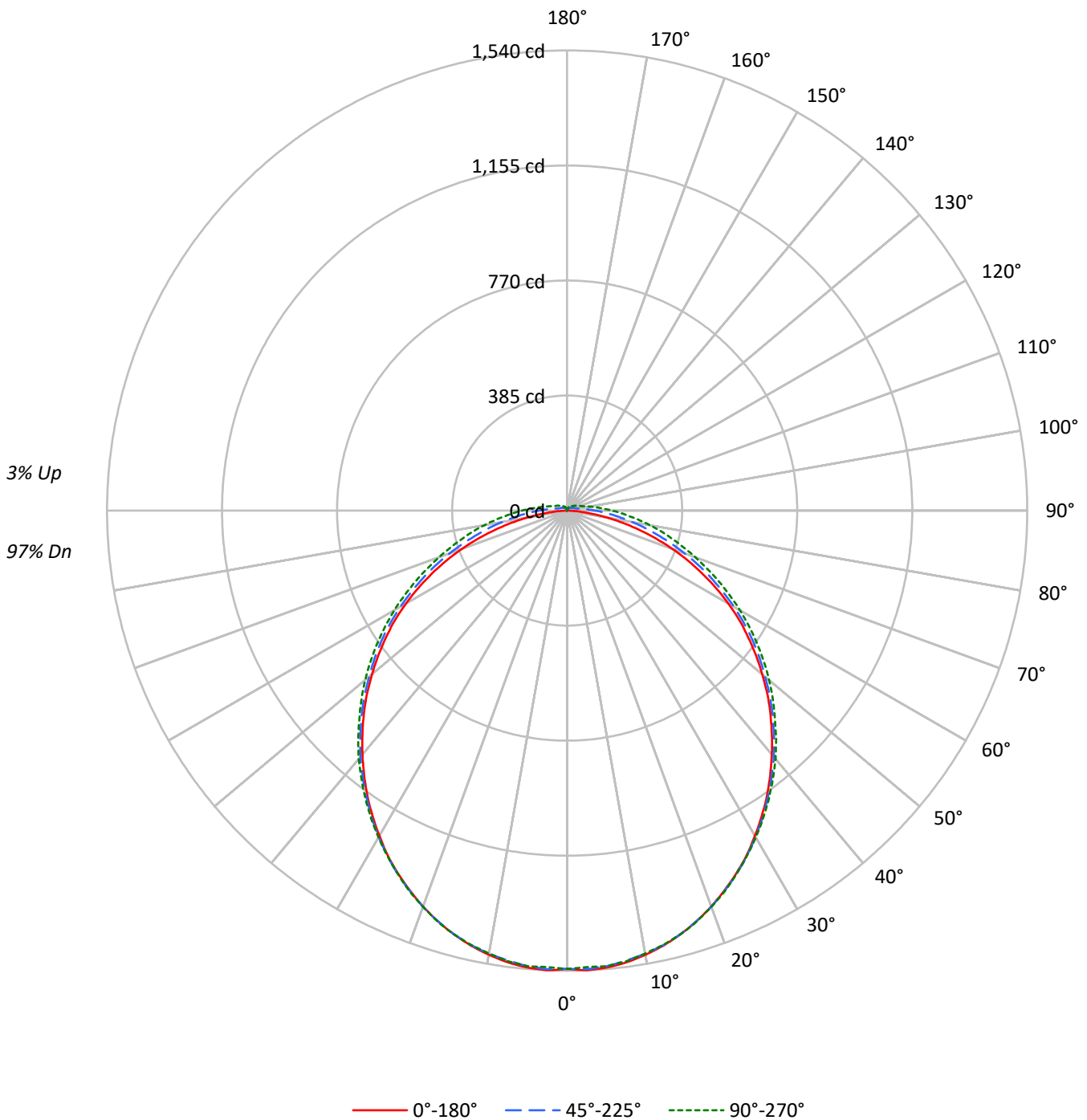
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4486.3 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.5' x H: 0.04')
CIE Type: Direct

Input Watts (W): 42.9
Input Voltage (V): 120.0
Input Current (Ain): 0.365
Voltage Rise (V): NR
Power Factor: 0.9927
Total Harmonic Distortion (THDi): 17.4%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 24 HR
Ambient Temperature (°C): 24.4
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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	107	102	98	94	104	100	95	92	95	91	88	90	87	85	86	84	82	79
2	97	89	82	76	94	87	80	75	83	77	72	79	74	70	75	71	68	66
3	89	78	70	63	86	76	68	62	73	66	61	69	64	59	66	62	58	55
4	81	69	60	53	79	67	59	53	64	57	52	62	56	50	59	54	49	47
5	75	62	53	46	72	60	52	45	58	50	45	55	49	44	53	48	43	41
6	69	55	46	40	67	54	46	40	52	45	39	50	44	38	48	42	38	36
7	64	50	41	35	62	49	41	35	47	40	35	46	39	34	44	38	34	32
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	37	32	27	25
10	52	39	31	26	51	38	31	26	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28306	28306	28306
5°	28403	27888	27733
10°	28234	27326	27009
15°	27954	26700	26283
20°	27568	25958	25396
25°	27132	25151	24470
30°	26600	24273	23516
35°	26048	23350	22564
40°	25424	22433	21603
45°	24809	21423	20522
50°	24116	20342	19507
55°	23408	19285	18396
60°	22527	18023	17203
65°	21288	16563	15889
70°	19591	14946	14584
75°	17065	13153	13425
80°	13538	11506	12350
85°	8013	10053	11361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	3.2
10°-20°	412.4	9.2
20°-30°	615.8	13.7
30°-40°	730.0	16.3
40°-50°	748.3	16.7
50°-60°	675.4	15.1
60°-70°	523.2	11.7
70°-80°	328.8	7.3
80°-90°	155.6	3.5
90°-100°	63.7	1.4
100°-110°	31.7	0.7
110°-120°	20.8	0.5
120°-130°	14.7	0.3
130°-140°	10.1	0.2
140°-150°	6.3	0.1
150°-160°	3.4	0.1
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	1173.2	26.1
0°-40°	1903.2	42.4
0°-60°	3326.9	74.2
0°-90°	4334.5	96.6
90°-120°	116.2	2.6
90°-150°	147.3	3.3
90°-180°	152.0	3.4
0°-180°	4486.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1535	1524	1530	1521	1530	146
15°	1468	1458	1467	1460	1468	414
25°	1340	1331	1342	1334	1342	617
35°	1166	1158	1171	1167	1177	729
45°	962	958	973	975	983	742
55°	740	741	758	765	776	662
65°	500	505	530	547	559	494
75°	250	268	312	349	364	266
85°	43	86	148	193	207	55
90°	0	38	94	137	151	2
95°	0	18	58	95	107	0
105°	1	11	29	49	56	1
115°	1	10	21	33	38	1
125°	1	9	17	24	27	1
135°	2	7	14	19	21	2
145°	2	6	10	14	16	1
155°	3	5	8	9	12	1
165°	4	5	6	6	7	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1534	1534	1534	1534	1534
2.5°	1540	1529	1536	1527	1529
5°	1535	1524	1530	1521	1530
7.5°	1525	1514	1519	1512	1521
10°	1510	1498	1506	1497	1505
12.5°	1491	1480	1489	1480	1488
15°	1468	1458	1467	1460	1468
17.5°	1441	1431	1441	1434	1442
20°	1410	1401	1411	1403	1411
22.5°	1376	1368	1377	1369	1379
25°	1340	1331	1342	1334	1342
27.5°	1301	1291	1303	1296	1303
30°	1257	1249	1261	1255	1263
32.5°	1212	1204	1218	1211	1221
35°	1166	1158	1171	1167	1177
37.5°	1116	1110	1124	1121	1131
40°	1066	1061	1076	1073	1085
42.5°	1014	1011	1025	1024	1035
45°	962	958	973	975	983
47.5°	909	906	920	924	934
50°	852	851	865	872	882
52.5°	797	798	812	820	830
55°	740	741	758	765	776
57.5°	684	684	702	711	722
60°	623	624	645	657	668
62.5°	562	565	587	602	613
65°	500	505	530	547	559
67.5°	438	446	474	495	506
70°	375	385	418	443	456
72.5°	312	325	363	394	408
75°	250	268	312	349	364
77.5°	192	213	266	308	323
80°	136	164	222	267	281
82.5°	85	121	182	228	243
85°	43	86	148	193	207
87.5°	12	58	119	163	178
90°	0	38	94	137	151
92.5°	0	25	74	114	127
95°	0	18	58	95	107
97.5°	0	14	46	78	90
100°	0	12	38	65	76
102.5°	0	11	33	56	65
105°	1	11	29	49	56
107.5°	1	10	26	43	50
110°	1	10	24	39	45



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1	10	23	35	41
115°	1	10	21	33	38
117.5°	1	10	20	30	35
120°	1	9	19	28	32
122.5°	1	9	18	26	30
125°	1	9	17	24	27
127.5°	2	9	17	23	26
130°	2	8	16	22	24
132.5°	2	8	15	20	22
135°	2	7	14	19	21
137.5°	2	7	13	18	20
140°	2	7	12	17	18
142.5°	2	6	11	16	17
145°	2	6	10	14	16
147.5°	2	6	10	13	15
150°	3	6	9	12	14
152.5°	3	5	8	11	13
155°	3	5	8	9	12
157.5°	3	5	7	8	10
160°	3	5	6	7	9
162.5°	4	5	6	6	8
165°	4	5	6	6	7
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)