

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: NEO-RAY

Report Number: P199498

Luminaire Tested: **S124-DIW-U2-LO-35-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199498
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28061)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIW-U2-LO-35-0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-3500K, NO LENS
DOWNLIGHT LLO-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

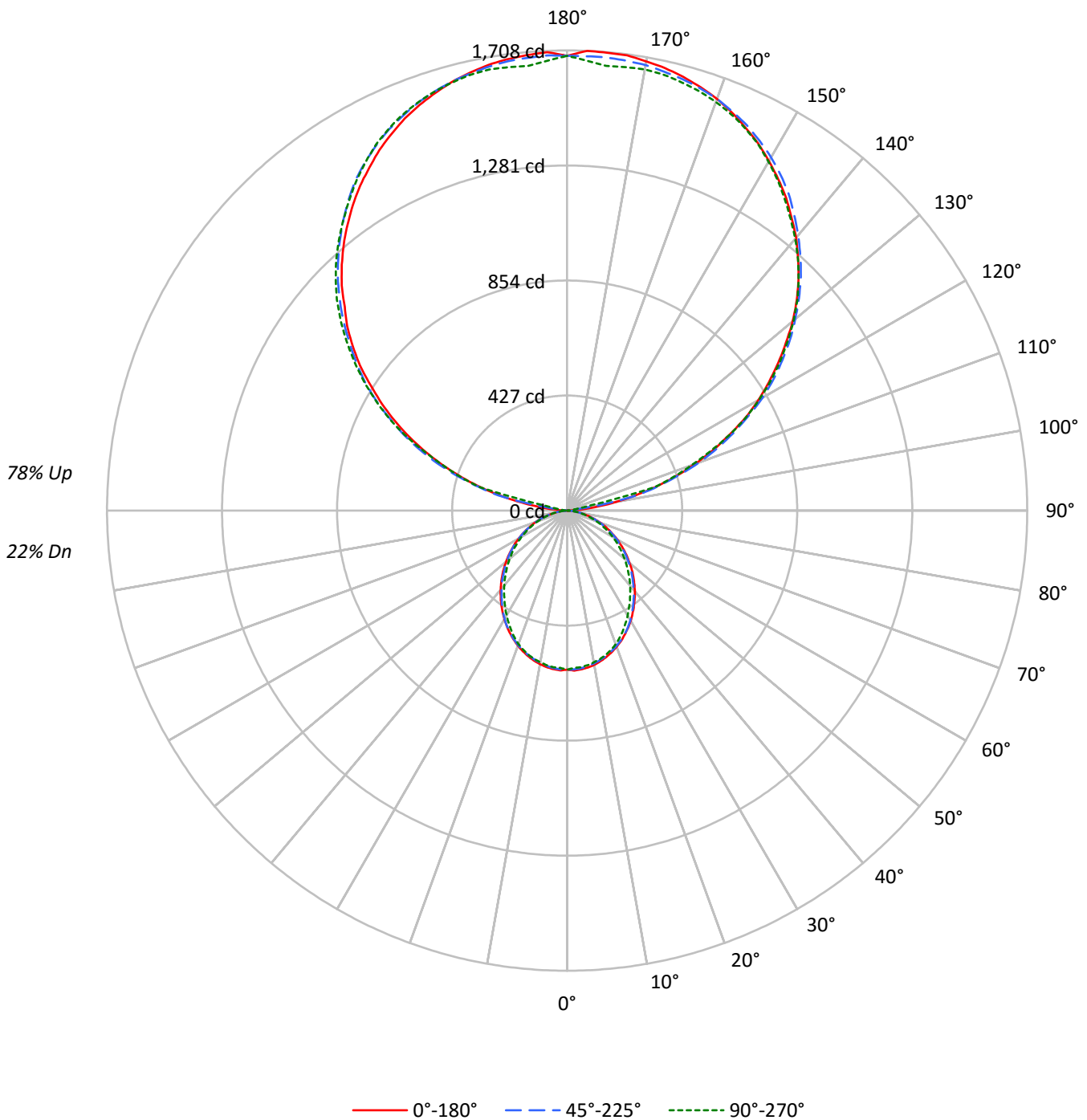
Lumens per Lamp: N/A
Luminaire Lumens: 6525.2 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 52.3
Input Voltage (V): NR
Input Current (A_{in}): 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	101	101	101	101	89	89	89	89	68	68	68	49	49	49	31	31	31	22
1	92	88	84	80	81	78	75	72	59	57	56	43	41	40	27	27	26	19
2	83	76	71	66	74	68	63	59	52	49	46	38	35	34	24	23	22	16
3	76	67	60	55	67	60	54	49	46	42	39	33	31	29	21	20	19	14
4	70	59	52	46	61	53	47	42	41	36	33	29	27	24	19	17	16	12
5	64	53	45	39	56	47	40	36	36	32	28	26	23	21	17	15	14	10
6	59	47	39	34	52	42	35	31	33	28	24	24	21	18	15	14	12	9
7	54	42	35	29	48	38	31	27	29	25	21	22	18	16	14	12	11	8
8	50	38	31	26	44	34	28	23	27	22	19	20	17	14	13	11	10	7
9	46	35	28	23	41	31	25	21	24	20	17	18	15	13	12	10	9	6
10	43	32	25	20	38	28	23	18	22	18	15	17	14	11	11	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4668	4668	4668
5°	4660	4217	4652
10°	4594	3832	4575
15°	4495	3487	4472
20°	4380	3150	4348
25°	4241	2808	4202
30°	4095	2487	4042
35°	3920	2191	3865
40°	3746	1929	3681
45°	3557	1689	3488
50°	3345	1461	3285
55°	3155	1250	3072
60°	2918	1047	2834
65°	2684	849	2578
70°	2385	653	2273
75°	2007	460	1859
80°	1506	280	1410
85°	885	124	837



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	0.9
10°-20°	156.7	2.4
20°-30°	229.5	3.5
30°-40°	263.1	4.0
40°-50°	259.3	4.0
50°-60°	223.5	3.4
60°-70°	163.0	2.5
70°-80°	88.9	1.4
80°-90°	23.3	0.4
90°-100°	42.8	0.7
100°-110°	341.2	5.2
110°-120°	660.3	10.1
120°-130°	858.6	13.2
130°-140°	932.0	14.3
140°-150°	881.9	13.5
150°-160°	719.4	11.0
160°-170°	465.7	7.1
170°-180°	160.2	2.5
0°-30°	441.8	6.8
0°-40°	704.8	10.8
0°-60°	1187.7	18.2
0°-90°	1463.0	22.4
90°-120°	1044.3	16.0
90°-150°	3716.9	57.0
90°-180°	5062.0	77.6
0°-180°	6525.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	590	590	590	590	590	
5°	592	588	584	587	591	56
15°	562	558	554	555	560	159
25°	507	505	491	501	502	234
35°	432	428	406	422	426	270
45°	347	340	321	334	340	268
55°	259	254	236	249	252	231
65°	172	168	155	164	165	170
75°	88	85	78	81	82	94
85°	20	20	19	19	19	23
90°	1	1	1	1	1	4
95°	59	15	16	16	53	75
105°	340	349	335	341	330	359
115°	663	680	666	671	646	657
125°	956	976	964	954	939	855
135°	1214	1227	1215	1203	1183	936
145°	1417	1434	1409	1413	1386	886
155°	1568	1578	1565	1562	1543	723
165°	1666	1658	1645	1649	1648	471
175°	1706	1688	1657	1687	1697	162
180°	1688	1688	1688	1688	1688	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	590.3	590.3	590.3	590.3	590.3	590.3	590.3	590.3	590.3
2.5°	594.6	587.8	590.0	588.5	584.6	588.5	589.6	587.5	593.9
5°	591.7	585.3	587.5	585.3	583.5	585.0	586.7	584.2	590.7
7.5°	587.5	580.7	582.5	580.7	578.9	580.3	581.4	579.2	586.0
10°	581.4	574.3	576.0	573.9	571.8	573.2	574.3	572.1	578.9
12.5°	572.8	566.0	567.5	566.0	564.3	564.6	565.3	563.2	570.3
15°	562.5	555.7	558.2	556.8	554.3	555.7	555.3	552.8	559.6
17.5°	550.7	544.3	547.1	545.7	542.1	544.3	544.3	540.3	547.5
20°	537.8	531.1	535.0	531.4	527.5	529.6	531.4	526.8	533.9
22.5°	523.6	516.4	521.1	514.6	510.4	512.9	517.1	512.2	518.6
25°	506.8	501.1	505.4	496.4	490.7	494.3	501.1	496.1	502.2
27.5°	490.4	484.7	488.2	478.2	470.4	475.0	483.6	479.3	484.7
30°	472.2	467.5	469.3	457.5	449.3	454.3	464.3	461.8	466.1
32.5°	452.2	448.6	448.6	436.1	427.6	433.3	444.0	443.3	446.1
35°	432.2	430.1	427.6	414.0	405.8	411.1	421.5	424.4	426.1
37.5°	411.9	410.4	405.8	392.6	384.7	390.4	400.1	404.4	405.4
40°	390.8	390.1	383.7	371.2	363.3	369.0	379.0	384.4	384.0
42.5°	369.4	370.1	362.3	350.1	342.3	348.0	357.3	364.4	362.6
45°	347.3	349.4	340.1	329.1	320.9	326.9	334.4	343.3	340.5
47.5°	325.8	328.3	318.7	307.3	299.4	305.9	313.4	323.0	318.7
50°	301.6	306.6	297.3	285.9	278.0	284.1	293.0	301.2	296.2
52.5°	280.5	284.1	275.9	264.8	257.3	262.3	271.2	279.5	274.1
55°	258.8	262.7	254.5	243.4	236.3	241.3	249.1	257.3	252.0
57.5°	235.9	239.8	232.3	222.3	215.6	220.9	229.1	234.8	229.8
60°	213.8	218.8	210.6	200.9	195.2	199.5	205.9	212.7	207.7
62.5°	192.4	197.0	189.2	180.2	174.9	178.8	185.6	190.9	186.3
65°	171.7	174.5	167.7	159.5	154.9	157.4	163.5	169.5	164.9
67.5°	150.6	153.5	146.7	139.5	134.9	137.4	142.4	148.1	143.8
70°	129.2	131.7	126.0	119.6	115.6	118.1	122.8	127.1	123.1
72.5°	108.9	110.6	105.3	100.3	97.4	99.2	102.4	106.4	104.6
75°	88.2	90.3	84.9	80.7	78.2	78.9	81.4	84.6	81.7
77.5°	68.5	70.7	66.4	63.2	61.7	62.1	63.9	66.4	62.8
80°	50.3	52.1	49.6	46.8	45.3	46.0	47.1	48.5	47.1
82.5°	33.9	35.7	33.9	32.1	31.1	31.8	32.1	32.8	31.8
85°	20.0	21.4	20.3	19.3	18.9	18.9	19.3	20.0	18.9
87.5°	8.9	10.0	9.3	8.6	7.5	7.9	8.2	8.9	8.2
90°	0.7	1.8	1.4	1.1	1.1	1.1	1.4	1.8	0.7
92.5°	19.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	13.0
95°	59.0	38.0	15.0	16.0	16.0	16.0	16.0	26.0	53.0
97.5°	115.0	134.0	29.0	19.0	19.0	19.0	29.0	127.0	107.0
100°	182.0	200.0	146.0	46.0	34.0	43.0	128.0	189.0	173.0
102.5°	257.0	280.0	269.0	151.0	87.0	129.0	261.0	268.0	250.0
105°	340.0	360.0	349.0	354.0	335.0	341.0	341.0	345.0	330.0
107.5°	422.0	439.0	433.0	429.0	414.0	418.0	428.0	426.0	409.0
110°	504.0	521.0	521.0	508.0	490.0	497.0	513.0	503.0	489.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	586.0	599.0	602.0	595.0	574.0	584.0	593.0	577.0	568.0
115°	663.0	682.0	680.0	681.0	666.0	666.0	671.0	659.0	646.0
117.5°	746.0	760.0	757.0	758.0	748.0	744.0	743.0	735.0	721.0
120°	819.0	835.0	837.0	830.0	823.0	815.0	820.0	809.0	794.0
122.5°	888.0	906.0	909.0	902.0	895.0	886.0	890.0	878.0	864.0
125°	956.0	976.0	976.0	971.0	964.0	955.0	954.0	944.0	939.0
127.5°	1024.0	1047.0	1043.0	1038.0	1032.0	1022.0	1017.0	1011.0	1003.0
130°	1093.0	1109.0	1105.0	1101.0	1097.0	1085.0	1081.0	1075.0	1066.0
132.5°	1156.0	1165.0	1167.0	1159.0	1159.0	1144.0	1143.0	1136.0	1120.0
135°	1214.0	1223.0	1227.0	1215.0	1215.0	1200.0	1203.0	1193.0	1183.0
137.5°	1269.0	1276.0	1281.0	1267.0	1268.0	1254.0	1259.0	1242.0	1238.0
140°	1322.0	1325.0	1334.0	1319.0	1317.0	1305.0	1312.0	1295.0	1290.0
142.5°	1369.0	1373.0	1384.0	1368.0	1363.0	1354.0	1363.0	1342.0	1339.0
145°	1417.0	1418.0	1434.0	1415.0	1409.0	1402.0	1413.0	1388.0	1386.0
147.5°	1459.0	1457.0	1476.0	1460.0	1454.0	1447.0	1459.0	1430.0	1430.0
150°	1498.0	1496.0	1514.0	1501.0	1495.0	1489.0	1496.0	1469.0	1469.0
152.5°	1536.0	1529.0	1547.0	1536.0	1534.0	1525.0	1531.0	1505.0	1509.0
155°	1568.0	1561.0	1578.0	1569.0	1565.0	1558.0	1562.0	1537.0	1543.0
157.5°	1599.0	1588.0	1603.0	1599.0	1592.0	1588.0	1588.0	1568.0	1575.0
160°	1626.0	1613.0	1626.0	1620.0	1614.0	1609.0	1613.0	1593.0	1602.0
162.5°	1648.0	1636.0	1643.0	1635.0	1632.0	1624.0	1632.0	1616.0	1626.0
165°	1666.0	1653.0	1658.0	1647.0	1645.0	1639.0	1649.0	1638.0	1648.0
167.5°	1682.0	1670.0	1668.0	1657.0	1657.0	1649.0	1661.0	1655.0	1665.0
170°	1693.0	1683.0	1679.0	1663.0	1663.0	1656.0	1673.0	1668.0	1680.0
172.5°	1704.0	1691.0	1684.0	1667.0	1660.0	1661.0	1682.0	1678.0	1690.0
175°	1706.0	1696.0	1688.0	1670.0	1657.0	1666.0	1687.0	1688.0	1697.0
177.5°	1708.0	1698.0	1688.0	1673.0	1671.0	1669.0	1691.0	1690.0	1703.0
180°	1688.0	1688.0	1688.0	1688.0	1688.0	1688.0	1688.0	1688.0	1688.0

(END OF REPORT)