

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: P199500

Luminaire Tested: **S124-DIW-U2-LO-40-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199500
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-40-0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-4000K, NO LENS
DOWNLIGHT LLO-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

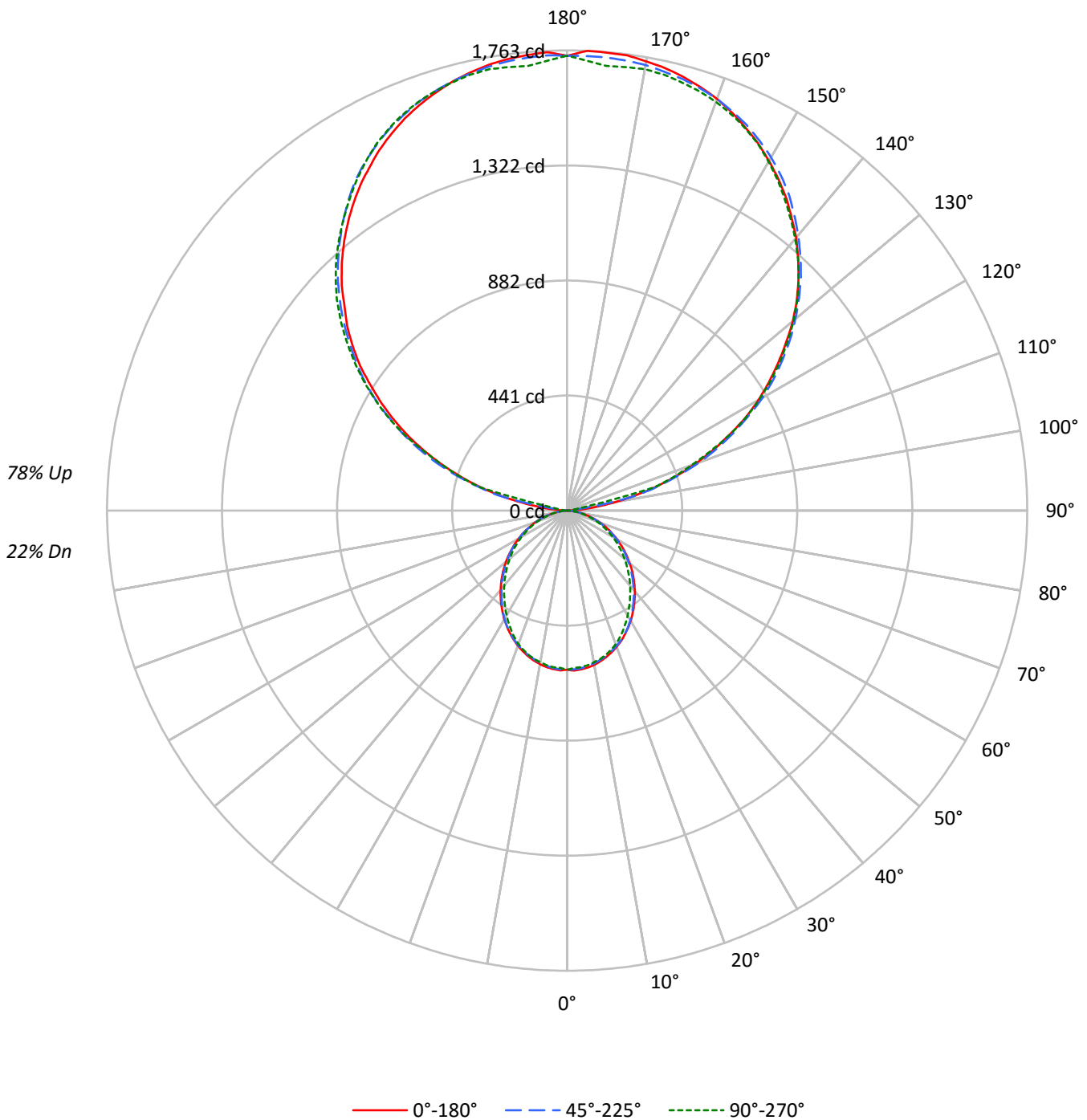
Lumens per Lamp: N/A
Luminaire Lumens: 6735.8 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

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°	4819	4819	4819
5°	4810	4354	4802
10°	4743	3955	4722
15°	4639	3600	4616
20°	4521	3251	4489
25°	4378	2899	4338
30°	4227	2568	4173
35°	4047	2262	3990
40°	3867	1992	3799
45°	3672	1743	3601
50°	3452	1508	3391
55°	3256	1290	3170
60°	3012	1081	2926
65°	2770	877	2661
70°	2463	675	2347
75°	2071	474	1921
80°	1554	289	1455
85°	912	128	863



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	0.9
10°-20°	161.7	2.4
20°-30°	236.9	3.5
30°-40°	271.6	4.0
40°-50°	267.7	4.0
50°-60°	230.8	3.4
60°-70°	168.3	2.5
70°-80°	91.8	1.4
80°-90°	24.1	0.4
90°-100°	44.2	0.7
100°-110°	352.2	5.2
110°-120°	681.6	10.1
120°-130°	886.3	13.2
130°-140°	962.1	14.3
140°-150°	910.4	13.5
150°-160°	742.7	11.0
160°-170°	480.7	7.1
170°-180°	165.4	2.5
0°-30°	456.0	6.8
0°-40°	727.6	10.8
0°-60°	1226.1	18.2
0°-90°	1510.2	22.4
90°-120°	1078.0	16.0
90°-150°	3836.8	57.0
90°-180°	5226.0	77.6
0°-180°	6735.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	609	609	609	609	609	
5°	611	606	602	606	610	58
15°	581	576	572	573	578	164
25°	523	522	507	517	518	241
35°	446	441	419	435	440	279
45°	358	351	331	345	352	277
55°	267	263	244	257	260	238
65°	177	173	160	169	170	175
75°	91	88	81	84	84	97
85°	21	21	20	20	20	23
90°	1	2	1	2	1	4
95°	61	16	16	16	55	77
105°	351	360	346	352	341	371
115°	684	702	688	693	667	678
125°	987	1008	995	985	969	883
135°	1253	1267	1254	1242	1221	966
145°	1463	1480	1454	1459	1431	915
155°	1619	1629	1616	1612	1593	747
165°	1720	1712	1698	1702	1701	486
175°	1761	1742	1710	1742	1752	168
180°	1742	1742	1742	1742	1742	



TEST NUMBER: P199500

CATALOG NUMBER: S124-DIW-U2-LO-40-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	609.4	609.4	609.4	609.4	609.4	609.4	609.4	609.4	609.4
2.5°	613.8	606.8	609.0	607.5	603.5	607.5	608.6	606.4	613.1
5°	610.8	604.2	606.4	604.2	602.4	603.8	605.7	603.1	609.7
7.5°	606.4	599.4	601.3	599.4	597.6	599.1	600.2	597.9	604.9
10°	600.2	592.8	594.6	592.4	590.2	591.7	592.8	590.6	597.6
12.5°	591.3	584.3	585.8	584.3	582.5	582.8	583.6	581.4	588.7
15°	580.6	573.6	576.2	574.7	572.2	573.6	573.3	570.7	577.7
17.5°	568.5	561.8	564.8	563.3	559.6	561.8	561.8	557.8	565.2
20°	555.2	548.2	552.3	548.6	544.5	546.7	548.6	543.8	551.2
22.5°	540.5	533.1	537.9	531.3	526.8	529.4	533.8	528.7	535.3
25°	523.2	517.3	521.7	512.5	506.6	510.3	517.3	512.1	518.4
27.5°	506.2	500.3	504.0	493.7	485.6	490.4	499.2	494.8	500.3
30°	487.4	482.6	484.5	472.3	463.8	469.0	479.3	476.7	481.2
32.5°	466.8	463.1	463.1	450.2	441.4	447.3	458.3	457.6	460.5
35°	446.2	443.9	441.4	427.4	418.9	424.4	435.1	438.1	439.9
37.5°	425.2	423.7	418.9	405.3	397.2	403.1	413.0	417.4	418.5
40°	403.4	402.7	396.1	383.2	375.1	380.9	391.3	396.8	396.4
42.5°	381.3	382.1	373.9	361.4	353.3	359.2	368.8	376.2	374.3
45°	358.5	360.7	351.1	339.7	331.2	337.5	345.2	354.4	351.5
47.5°	336.4	338.9	329.0	317.2	309.1	315.7	323.5	333.4	329.0
50°	311.3	316.5	306.9	295.1	287.0	293.3	302.5	310.9	305.8
52.5°	289.6	293.3	284.8	273.4	265.6	270.8	280.0	288.5	282.9
55°	267.1	271.2	262.7	251.3	243.9	249.1	257.2	265.6	260.1
57.5°	243.5	247.6	239.8	229.5	222.5	228.1	236.5	242.4	237.3
60°	220.7	225.8	217.4	207.4	201.5	205.9	212.6	219.6	214.4
62.5°	198.6	203.4	195.3	186.1	180.5	184.6	191.6	197.1	192.3
65°	177.2	180.2	173.2	164.7	159.9	162.5	168.7	175.0	170.2
67.5°	155.5	158.4	151.4	144.1	139.3	141.8	147.0	152.9	148.5
70°	133.4	135.9	130.1	123.4	119.4	121.9	126.7	131.2	127.1
72.5°	112.4	114.2	108.7	103.5	100.6	102.4	105.7	109.8	107.9
75°	91.0	93.2	87.7	83.3	80.7	81.4	84.0	87.3	84.4
77.5°	70.7	72.9	68.5	65.2	63.7	64.1	65.9	68.5	64.8
80°	51.9	53.8	51.2	48.3	46.8	47.5	48.6	50.1	48.6
82.5°	35.0	36.8	35.0	33.2	32.1	32.8	33.2	33.9	32.8
85°	20.6	22.1	21.0	19.9	19.5	19.5	19.9	20.6	19.5
87.5°	9.2	10.3	9.6	8.8	7.7	8.1	8.5	9.2	8.5
90°	0.7	1.8	1.5	1.1	1.1	1.1	1.5	1.8	0.7
92.5°	19.6	10.3	10.3	10.3	10.3	10.3	10.3	11.4	13.4
95°	60.9	39.2	15.5	16.5	16.5	16.5	16.5	26.8	54.7
97.5°	118.7	138.3	29.9	19.6	19.6	19.6	29.9	131.1	110.5
100°	187.9	206.5	150.7	47.5	35.1	44.4	132.1	195.1	178.6
102.5°	265.3	289.0	277.7	155.9	89.8	133.2	269.4	276.7	258.1
105°	351.0	371.6	360.3	365.4	345.8	352.0	352.0	356.1	340.7
107.5°	435.6	453.2	447.0	442.8	427.4	431.5	441.8	439.8	422.2
110°	520.3	537.8	537.8	524.4	505.8	513.0	529.6	519.2	504.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	604.9	618.3	621.4	614.2	592.5	602.9	612.1	595.6	586.3
115°	684.4	704.0	701.9	703.0	687.5	687.5	692.7	680.3	666.9
117.5°	770.1	784.5	781.4	782.5	772.1	768.0	767.0	758.7	744.3
120°	845.4	862.0	864.0	856.8	849.6	841.3	846.5	835.1	819.6
122.5°	916.7	935.2	938.3	931.1	923.9	914.6	918.7	906.3	891.9
125°	986.9	1007.5	1007.5	1002.3	995.1	985.8	984.8	974.5	969.3
127.5°	1057.1	1080.8	1076.7	1071.5	1065.3	1055.0	1049.8	1043.6	1035.4
130°	1128.3	1144.8	1140.7	1136.5	1132.4	1120.0	1115.9	1109.7	1100.4
132.5°	1193.3	1202.6	1204.7	1196.4	1196.4	1180.9	1179.9	1172.7	1156.2
135°	1253.2	1262.5	1266.6	1254.2	1254.2	1238.7	1241.8	1231.5	1221.2
137.5°	1310.0	1317.2	1322.3	1307.9	1308.9	1294.5	1299.6	1282.1	1278.0
140°	1364.7	1367.8	1377.1	1361.6	1359.5	1347.1	1354.3	1336.8	1331.6
142.5°	1413.2	1417.3	1428.7	1412.2	1407.0	1397.7	1407.0	1385.3	1382.2
145°	1462.7	1463.8	1480.3	1460.7	1454.5	1447.3	1458.6	1432.8	1430.7
147.5°	1506.1	1504.0	1523.6	1507.1	1500.9	1493.7	1506.1	1476.2	1476.2
150°	1546.4	1544.3	1562.9	1549.5	1543.3	1537.1	1544.3	1516.4	1516.4
152.5°	1585.6	1578.4	1596.9	1585.6	1583.5	1574.2	1580.4	1553.6	1557.7
155°	1618.6	1611.4	1628.9	1619.6	1615.5	1608.3	1612.4	1586.6	1592.8
157.5°	1650.6	1639.3	1654.7	1650.6	1643.4	1639.3	1639.3	1618.6	1625.8
160°	1678.5	1665.1	1678.5	1672.3	1666.1	1660.9	1665.1	1644.4	1653.7
162.5°	1701.2	1688.8	1696.0	1687.8	1684.7	1676.4	1684.7	1668.2	1678.5
165°	1719.8	1706.4	1711.5	1700.2	1698.1	1691.9	1702.2	1690.9	1701.2
167.5°	1736.3	1723.9	1721.8	1710.5	1710.5	1702.2	1714.6	1708.4	1718.7
170°	1747.6	1737.3	1733.2	1716.7	1716.7	1709.5	1727.0	1721.8	1734.2
172.5°	1759.0	1745.6	1738.4	1720.8	1713.6	1714.6	1736.3	1732.2	1744.6
175°	1761.1	1750.7	1742.5	1723.9	1710.5	1719.8	1741.5	1742.5	1751.8
177.5°	1763.1	1752.8	1742.5	1727.0	1724.9	1722.9	1745.6	1744.6	1758.0
180°	1742.5	1742.5	1742.5	1742.5	1742.5	1742.5	1742.5	1742.5	1742.5

(END OF REPORT)