

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055955

Luminaire Tested: S124R3DR-S1020D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055955
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D830-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

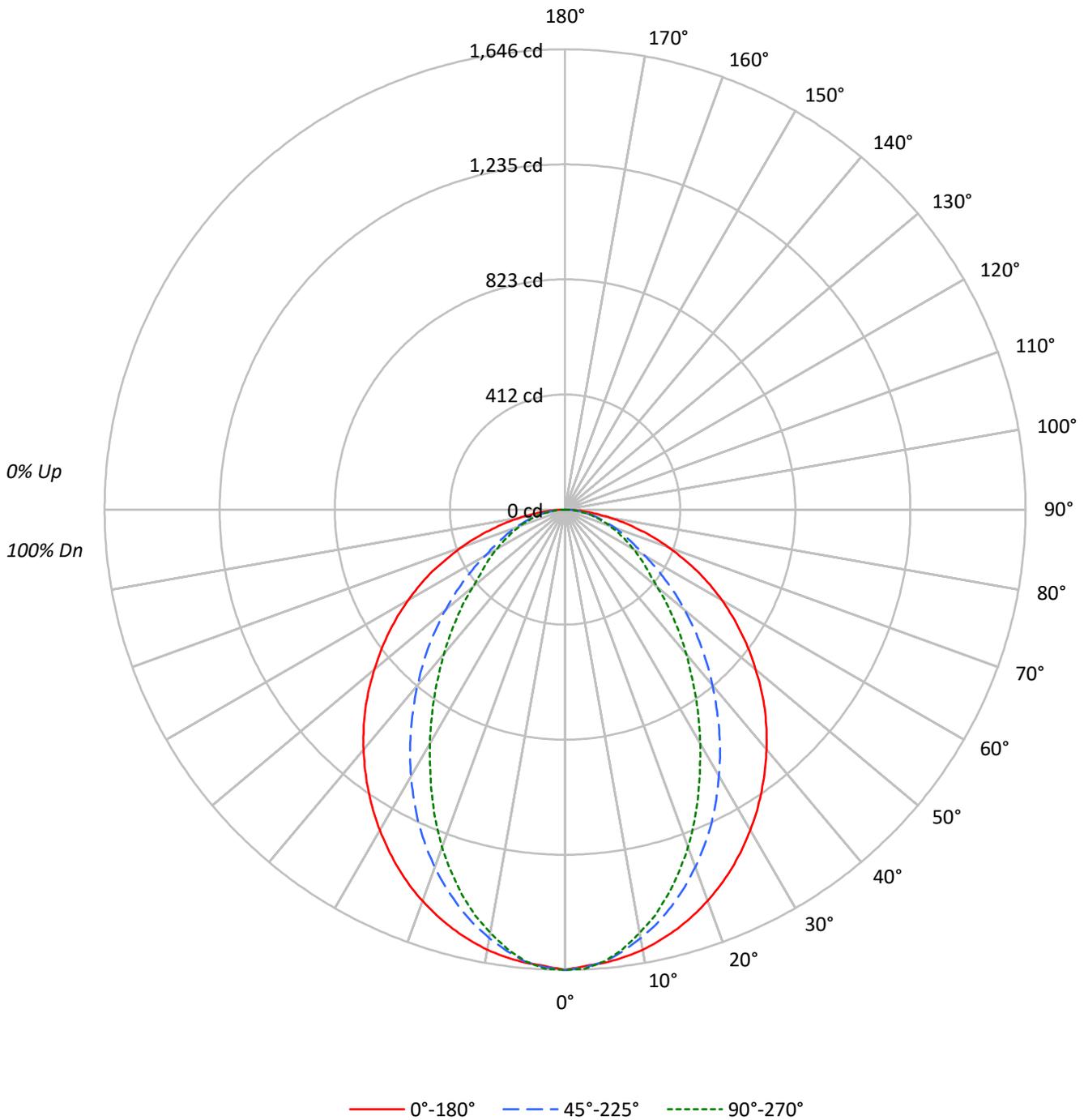
Lumens per Lamp: N/A
Luminaire Lumens: 3278.5 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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: 24 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14554	14554	14554
5°	14437	14404	14394
10°	14354	13973	13800
15°	14202	13448	13038
20°	14017	12809	12091
25°	13789	12076	10988
30°	13516	11240	9868
35°	13230	10367	8785
40°	12931	9464	7772
45°	12616	8587	6831
50°	12228	7664	5898
55°	11855	6741	5358
60°	11437	5782	4969
65°	10920	5245	4638
70°	10144	4852	4384
75°	9186	4468	4137
80°	8019	4134	3885
85°	6147	3804	3561

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12616 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	4.7
10°-20°	415.7	12.7
20°-30°	575.6	17.6
30°-40°	617.8	18.8
40°-50°	561.8	17.1
50°-60°	442.4	13.5
60°-70°	302.8	9.2
70°-80°	163.0	5.0
80°-90°	46.1	1.4
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°	1144.5	34.9
0°-40°	1762.3	53.8
0°-60°	2766.6	84.4
0°-90°	3278.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3278.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1646	1646	1646	1646	1646	
5°	1627	1645	1623	1615	1622	154
15°	1552	1535	1469	1429	1424	437
25°	1414	1355	1238	1148	1126	651
35°	1226	1130	960	844	814	767
45°	1009	881	687	568	546	778
55°	769	623	437	352	348	688
65°	522	373	251	223	222	515
75°	269	164	131	120	121	287
85°	61	41	38	35	35	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1646.1	1646.1	1646.1	1646.1	1646.1
2.5°	1633.9	1653.3	1638.8	1641.2	1643.6
5°	1626.7	1644.9	1623.0	1614.6	1621.8
7.5°	1614.6	1626.7	1592.8	1577.0	1584.3
10°	1598.8	1601.2	1556.4	1533.4	1537.1
12.5°	1577.0	1571.0	1516.5	1483.8	1486.2
15°	1551.6	1534.6	1469.2	1429.3	1424.4
17.5°	1522.5	1494.7	1417.1	1366.3	1356.6
20°	1489.8	1452.3	1361.4	1296.0	1285.1
22.5°	1453.5	1405.0	1300.9	1223.3	1207.6
25°	1413.5	1355.4	1237.9	1148.2	1126.4
27.5°	1369.9	1302.1	1170.0	1071.9	1044.1
30°	1323.9	1246.4	1101.0	995.6	966.6
32.5°	1276.6	1189.4	1030.8	919.3	889.0
35°	1225.8	1130.1	960.5	844.2	813.9
37.5°	1173.7	1068.3	889.0	771.6	740.1
40°	1120.4	1006.5	820.0	698.9	673.4
42.5°	1065.9	943.5	752.2	631.1	608.0
45°	1009.0	880.6	686.8	568.1	546.3
47.5°	950.8	816.4	620.1	508.7	488.1
50°	889.0	752.2	557.2	450.6	428.8
52.5°	829.7	686.8	496.6	393.6	382.7
55°	769.1	622.6	437.3	352.5	347.6
57.5°	708.6	558.4	382.7	319.8	314.9
60°	646.8	495.4	327.0	285.9	281.0
62.5°	585.0	433.6	285.9	253.1	250.7
65°	522.0	373.1	250.7	222.9	221.7
67.5°	455.4	314.9	219.2	196.2	195.0
70°	392.4	256.8	187.7	169.6	169.6
72.5°	333.1	203.5	158.7	144.1	144.1
75°	268.9	163.5	130.8	119.9	121.1
77.5°	212.0	128.4	105.4	98.1	98.1
80°	157.5	95.7	81.2	75.1	76.3
82.5°	106.6	66.6	58.1	54.5	54.5
85°	60.6	41.2	37.5	35.1	35.1
87.5°	21.8	19.4	18.2	15.7	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)