

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: P1055976

Luminaire Tested: S124R3DR-S1020D940-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055976
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-S1020D940-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

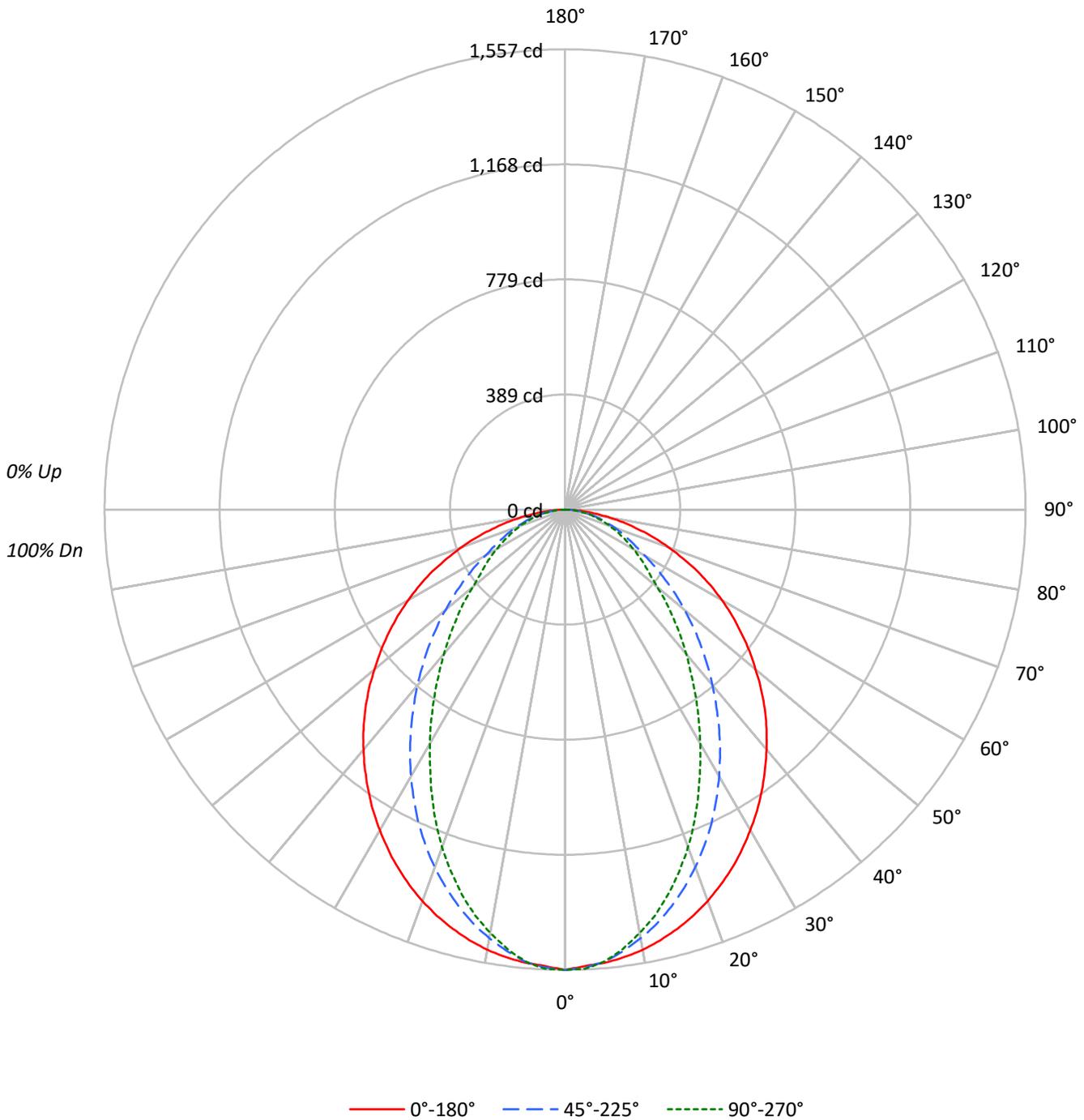
Lumens per Lamp: N/A
Luminaire Lumens: 3101.7 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86			86	
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73			73	
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63			63	
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			55	
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49			49	
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43			43	
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			39	
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35			35	
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32	
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29			29	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13769	13769	13769
5°	13659	13628	13618
10°	13580	13220	13055
15°	13436	12723	12335
20°	13262	12119	11439
25°	13046	11425	10396
30°	12787	10634	9335
35°	12517	9808	8311
40°	12234	8954	7353
45°	11935	8124	6462
50°	11569	7250	5580
55°	11217	6377	5070
60°	10820	5471	4702
65°	10333	4962	4387
70°	9598	4591	4146
75°	8690	4229	3915
80°	7586	3910	3676
85°	5813	3601	3368

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11935 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	4.7
10°-20°	393.3	12.7
20°-30°	544.5	17.6
30°-40°	584.5	18.8
40°-50°	531.5	17.1
50°-60°	418.6	13.5
60°-70°	286.5	9.2
70°-80°	154.2	5.0
80°-90°	43.7	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°	1082.8	34.9
0°-40°	1667.3	53.8
0°-60°	2617.4	84.4
0°-90°	3101.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3101.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1539	1556	1536	1528	1534	146
15°	1468	1452	1390	1352	1348	414
25°	1337	1282	1171	1086	1066	616
35°	1160	1069	909	799	770	725
45°	954	833	650	537	517	736
55°	728	589	414	334	329	651
65°	494	353	237	211	210	487
75°	254	155	124	113	115	272
85°	57	39	36	33	33	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1557.3	1557.3	1557.3	1557.3	1557.3
2.5°	1545.8	1564.2	1550.4	1552.7	1555.0
5°	1539.0	1556.1	1535.5	1527.5	1534.4
7.5°	1527.5	1539.0	1506.9	1492.0	1498.8
10°	1512.6	1514.9	1472.5	1450.7	1454.2
12.5°	1492.0	1486.2	1434.7	1403.7	1406.0
15°	1467.9	1451.9	1390.0	1352.2	1347.6
17.5°	1440.4	1414.0	1340.7	1292.6	1283.4
20°	1409.5	1373.9	1288.0	1226.1	1215.8
22.5°	1375.1	1329.3	1230.7	1157.4	1142.5
25°	1337.3	1282.3	1171.1	1086.3	1065.7
27.5°	1296.0	1231.9	1106.9	1014.1	987.8
30°	1252.5	1179.1	1041.6	941.9	914.4
32.5°	1207.8	1125.3	975.2	869.7	841.1
35°	1159.7	1069.1	908.7	798.7	770.0
37.5°	1110.4	1010.7	841.1	729.9	700.1
40°	1060.0	952.2	775.8	661.2	637.1
42.5°	1008.4	892.7	711.6	597.0	575.2
45°	954.5	833.1	649.7	537.4	516.8
47.5°	899.5	772.3	586.7	481.3	461.8
50°	841.1	711.6	527.1	426.3	405.7
52.5°	784.9	649.7	469.8	372.4	362.1
55°	727.7	589.0	413.7	333.5	328.9
57.5°	670.4	528.3	362.1	302.5	297.9
60°	611.9	468.7	309.4	270.4	265.9
62.5°	553.5	410.2	270.4	239.5	237.2
65°	493.9	352.9	237.2	210.8	209.7
67.5°	430.9	297.9	207.4	185.6	184.5
70°	371.3	242.9	177.6	160.4	160.4
72.5°	315.1	192.5	150.1	136.4	136.4
75°	254.4	154.7	123.8	113.4	114.6
77.5°	200.5	121.5	99.7	92.8	92.8
80°	149.0	90.5	76.8	71.0	72.2
82.5°	100.8	63.0	55.0	51.6	51.6
85°	57.3	39.0	35.5	33.2	33.2
87.5°	20.6	18.3	17.2	14.9	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)