

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: P1056002

Luminaire Tested: S124R3DR-S1195D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056002  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S1195D940-X4F0-XX-UDD-FLL-S  
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

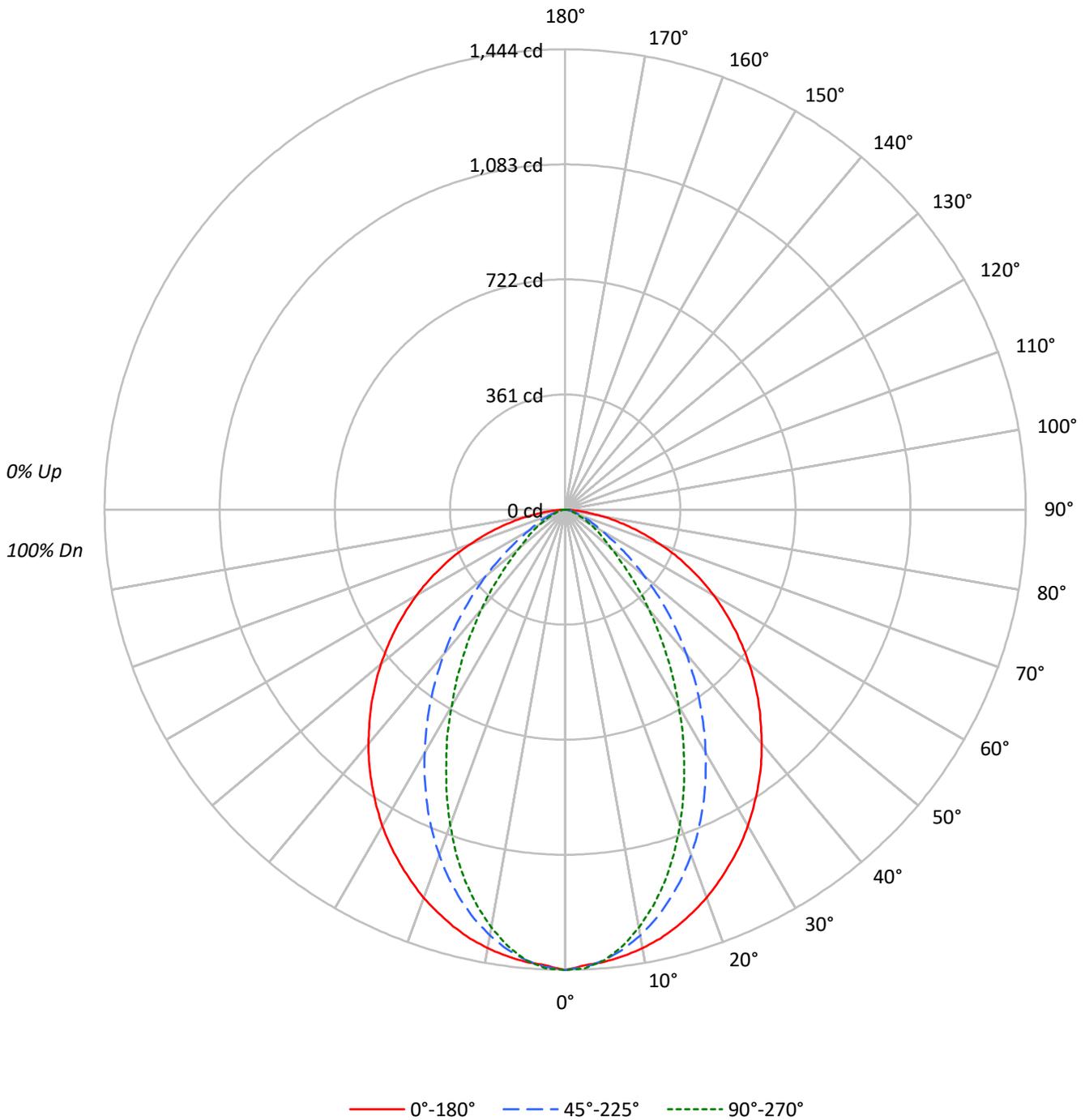
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2335.5 lumens  
Efficiency: N/A  
Efficacy: 55.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89	
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78			78	
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68			68	
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60			60	
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54			54	
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48			48	
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44			44	
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40			40	
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37			37	
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34			34	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12770	12770	12770
5°	12640	12592	12592
10°	12545	12182	11953
15°	12395	11595	11054
20°	12198	10857	9907
25°	11951	9984	8606
30°	11698	8993	7250
35°	11395	7940	5965
40°	11067	6814	4703
45°	10728	5667	3515
50°	10359	4458	2571
55°	9950	3296	2052
60°	9512	2283	1570
65°	8948	1772	1153
70°	8099	1251	905
75°	7075	875	690
80°	5682	682	616
85°	3135	548	548

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10728 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.0	5.7
10°-20°	358.0	15.3
20°-30°	477.5	20.4
30°-40°	480.7	20.6
40°-50°	394.2	16.9
50°-60°	269.5	11.5
60°-70°	150.6	6.4
70°-80°	59.7	2.6
80°-90°	11.3	0.5
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°	969.4	41.5
0°-40°	1450.1	62.1
0°-60°	2113.8	90.5
0°-90°	2335.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2335.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1424	1440	1419	1412	1419	135
15°	1354	1340	1267	1222	1208	382
25°	1225	1165	1023	920	882	564
35°	1056	944	736	596	553	660
45°	858	701	453	319	281	661
55°	646	453	214	143	133	577
65°	428	215	85	60	55	423
75°	207	56	26	22	20	222
85°	31	5	5	5	5	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1444.4	1444.4	1444.4	1444.4	1444.4
2.5°	1430.9	1448.4	1436.3	1437.6	1440.3
5°	1424.2	1440.3	1418.8	1412.1	1418.8
7.5°	1412.1	1424.2	1391.9	1378.5	1381.1
10°	1397.3	1401.3	1356.9	1334.1	1331.4
12.5°	1378.5	1373.1	1315.2	1281.6	1273.6
15°	1354.2	1339.5	1266.8	1222.5	1207.7
17.5°	1326.0	1300.5	1213.0	1155.2	1133.7
20°	1296.4	1258.8	1153.9	1079.9	1053.0
22.5°	1261.5	1214.4	1090.7	1000.6	969.6
25°	1225.1	1164.6	1023.4	919.9	882.2
27.5°	1187.5	1113.5	953.5	837.8	800.2
30°	1145.8	1058.4	880.9	755.8	710.1
32.5°	1101.4	1001.9	808.2	675.1	632.1
35°	1055.7	944.1	735.6	595.8	552.7
37.5°	1008.6	884.9	663.0	520.5	477.4
40°	958.9	824.4	590.4	449.2	407.5
42.5°	907.8	762.5	520.5	381.9	342.9
45°	858.0	700.7	453.2	318.7	281.1
47.5°	805.6	638.8	387.3	259.6	227.3
50°	753.1	576.9	324.1	208.4	186.9
52.5°	699.3	515.1	266.3	170.8	156.0
55°	645.5	453.2	213.8	142.6	133.1
57.5°	591.7	391.3	165.4	121.0	110.3
60°	537.9	330.8	129.1	98.2	88.8
62.5°	482.8	270.3	106.2	78.0	69.9
65°	427.7	215.2	84.7	60.5	55.1
67.5°	372.5	164.1	64.6	47.1	43.0
70°	313.3	117.0	48.4	36.3	35.0
72.5°	262.2	79.3	35.0	28.2	26.9
75°	207.1	56.5	25.6	21.5	20.2
77.5°	160.0	36.3	18.8	17.5	16.1
80°	111.6	20.2	13.4	12.1	12.1
82.5°	68.6	10.8	9.4	8.1	8.1
85°	30.9	5.4	5.4	5.4	5.4
87.5°	5.4	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)