

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: P1055150

Luminaire Tested: S122R3DR-S1005D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055150  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S1005D840-X4F0-XX-UDD-FLL-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

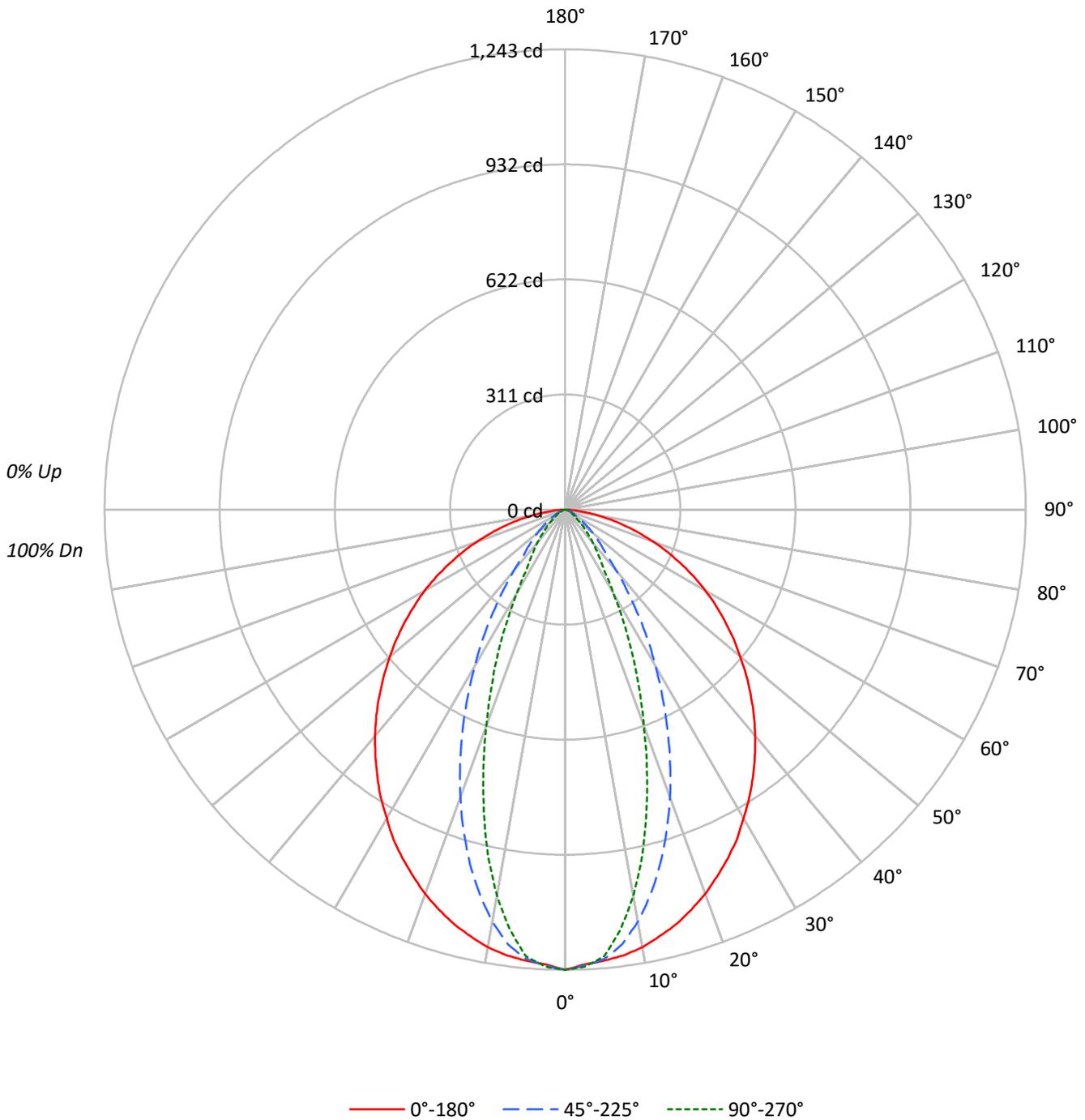
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1424.3 lumens  
Efficiency: N/A  
Efficacy: 34.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' 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				
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71				
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53				
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45				
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39				

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

	0°	45°	90°
0°	23546	23546	23546
5°	23259	23172	23027
10°	23088	21741	20364
15°	22733	19447	16609
20°	22263	16674	12529
25°	21713	13659	8947
30°	21059	10663	5697
35°	20432	7820	3805
40°	19739	5273	2864
45°	18975	3714	2042
50°	18180	2830	1435
55°	17407	1962	1057
60°	16562	1326	864
65°	15363	955	681
70°	14004	759	593
75°	12151	666	447
80°	9634	502	502
85°	5304	652	326

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18975 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.6	8.0
10°-20°	278.9	19.6
20°-30°	318.6	22.4
30°-40°	270.2	19.0
40°-50°	201.6	14.2
50°-60°	130.3	9.1
60°-70°	72.6	5.1
70°-80°	31.9	2.2
80°-90°	6.6	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°	711.1	49.9
0°-40°	981.3	68.9
0°-60°	1313.2	92.2
0°-90°	1424.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1424.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1243	1243	1243	1243	1243	
5°	1223	1238	1218	1206	1211	116
15°	1159	1130	992	886	847	326
25°	1039	917	653	478	428	478
35°	883	666	338	184	164	552
45°	708	420	139	90	76	546
55°	527	200	59	37	32	471
65°	343	73	21	17	15	341
75°	166	15	9	8	6	177
85°	24	2	3	2	2	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1242.8	1242.8	1242.8	1242.8	1242.8
2.5°	1229.1	1247.4	1232.1	1232.1	1235.2
5°	1223.0	1238.2	1218.4	1206.2	1210.8
7.5°	1213.9	1224.5	1183.4	1146.8	1143.8
10°	1200.1	1204.7	1130.1	1073.7	1058.5
12.5°	1180.3	1169.7	1064.6	985.4	959.5
15°	1159.0	1130.1	991.5	886.4	846.8
17.5°	1133.1	1081.4	910.8	782.8	734.1
20°	1104.2	1031.1	827.0	674.7	621.4
22.5°	1072.2	974.7	740.2	572.7	519.4
25°	1038.7	916.9	653.4	478.2	428.0
27.5°	1003.7	855.9	568.1	392.9	338.1
30°	962.6	793.5	487.4	310.7	260.4
32.5°	924.5	728.0	412.7	240.6	198.0
35°	883.4	665.6	338.1	184.3	164.5
37.5°	840.7	603.1	272.6	155.3	138.6
40°	798.1	540.7	213.2	131.0	115.8
42.5°	753.9	479.8	164.5	109.7	94.4
45°	708.2	420.4	138.6	89.9	76.2
47.5°	662.5	361.0	115.8	71.6	60.9
50°	616.8	304.6	96.0	56.4	48.7
52.5°	572.7	251.3	76.2	45.7	39.6
55°	527.0	199.5	59.4	36.6	32.0
57.5°	481.3	155.3	45.7	30.5	27.4
60°	437.1	117.3	35.0	24.4	22.8
62.5°	391.4	94.4	27.4	19.8	18.3
65°	342.7	73.1	21.3	16.8	15.2
67.5°	298.5	53.3	16.8	13.7	12.2
70°	252.8	36.6	13.7	12.2	10.7
72.5°	208.7	22.8	10.7	9.1	9.1
75°	166.0	15.2	9.1	7.6	6.1
77.5°	126.4	9.1	6.1	6.1	4.6
80°	88.3	6.1	4.6	4.6	4.6
82.5°	54.8	4.6	3.0	3.0	3.0
85°	24.4	1.5	3.0	1.5	1.5
87.5°	4.6	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)