

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: P1055165

Luminaire Tested: S122R3DR-S1005D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055165  
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-S1005D940-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, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

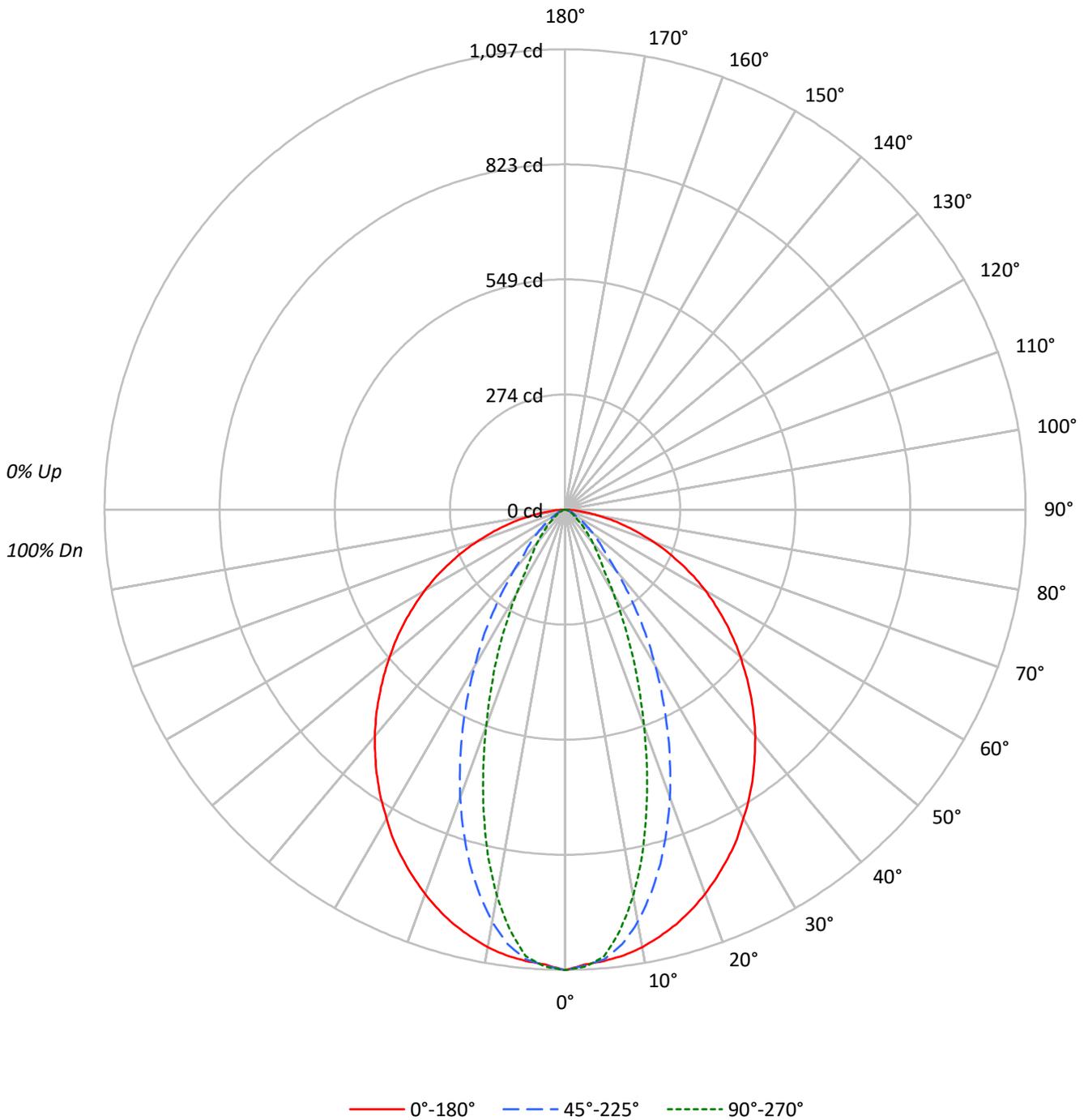
Lumens per Lamp: N/A  
Luminaire Lumens: 1257.6 lumens  
Efficiency: N/A  
Efficacy: 30.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

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°	20791	20791	20791
5°	20538	20462	20332
10°	20387	19198	17982
15°	20073	17172	14666
20°	19658	14722	11063
25°	19174	12060	7900
30°	18593	9414	5032
35°	18040	6906	3358
40°	17429	4657	2528
45°	16754	3280	1801
50°	16055	2496	1267
55°	15369	1731	931
60°	14626	1171	765
65°	13565	843	601
70°	12364	670	521
75°	10731	593	395
80°	8510	436	436
85°	4674	587	283

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16754 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.3	8.0
10°-20°	246.3	19.6
20°-30°	281.3	22.4
30°-40°	238.6	19.0
40°-50°	178.0	14.2
50°-60°	115.0	9.1
60°-70°	64.1	5.1
70°-80°	28.2	2.2
80°-90°	5.8	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°	627.9	49.9
0°-40°	866.5	68.9
0°-60°	1159.5	92.2
0°-90°	1257.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1080	1093	1076	1065	1069	102
15°	1023	998	876	783	748	288
25°	917	810	577	422	378	422
35°	780	588	299	163	145	488
45°	625	371	122	79	67	482
55°	465	176	52	32	28	416
65°	303	65	19	15	13	301
75°	147	13	8	7	5	156
85°	22	1	3	1	1	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1097.4	1097.4	1097.4	1097.4	1097.4
2.5°	1085.3	1101.4	1088.0	1088.0	1090.7
5°	1079.9	1093.4	1075.9	1065.1	1069.1
7.5°	1071.8	1081.2	1044.9	1012.7	1010.0
10°	1059.7	1063.8	997.9	948.1	934.7
12.5°	1042.2	1032.8	940.0	870.1	847.2
15°	1023.4	997.9	875.5	782.7	747.7
17.5°	1000.6	954.8	804.2	691.2	648.2
20°	975.0	910.5	730.2	595.8	548.7
22.5°	946.8	860.7	653.6	505.7	458.6
25°	917.2	809.6	576.9	422.3	377.9
27.5°	886.2	755.8	501.6	347.0	298.6
30°	849.9	700.7	430.3	274.3	230.0
32.5°	816.3	642.8	364.5	212.5	174.8
35°	780.0	587.7	298.6	162.7	145.2
37.5°	742.3	532.6	240.7	137.2	122.4
40°	704.7	477.4	188.3	115.7	102.2
42.5°	665.7	423.6	145.2	96.8	83.4
45°	625.3	371.2	122.4	79.3	67.2
47.5°	585.0	318.7	102.2	63.2	53.8
50°	544.7	269.0	84.7	49.8	43.0
52.5°	505.7	221.9	67.2	40.3	35.0
55°	465.3	176.2	52.4	32.3	28.2
57.5°	425.0	137.2	40.3	26.9	24.2
60°	386.0	103.6	30.9	21.5	20.2
62.5°	345.6	83.4	24.2	17.5	16.1
65°	302.6	64.6	18.8	14.8	13.4
67.5°	263.6	47.1	14.8	12.1	10.8
70°	223.2	32.3	12.1	10.8	9.4
72.5°	184.2	20.2	9.4	8.1	8.1
75°	146.6	13.4	8.1	6.7	5.4
77.5°	111.6	8.1	5.4	5.4	4.0
80°	78.0	5.4	4.0	4.0	4.0
82.5°	48.4	4.0	2.7	2.7	2.7
85°	21.5	1.3	2.7	1.3	1.3
87.5°	4.0	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)