

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: P1055149

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055149  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)  
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-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

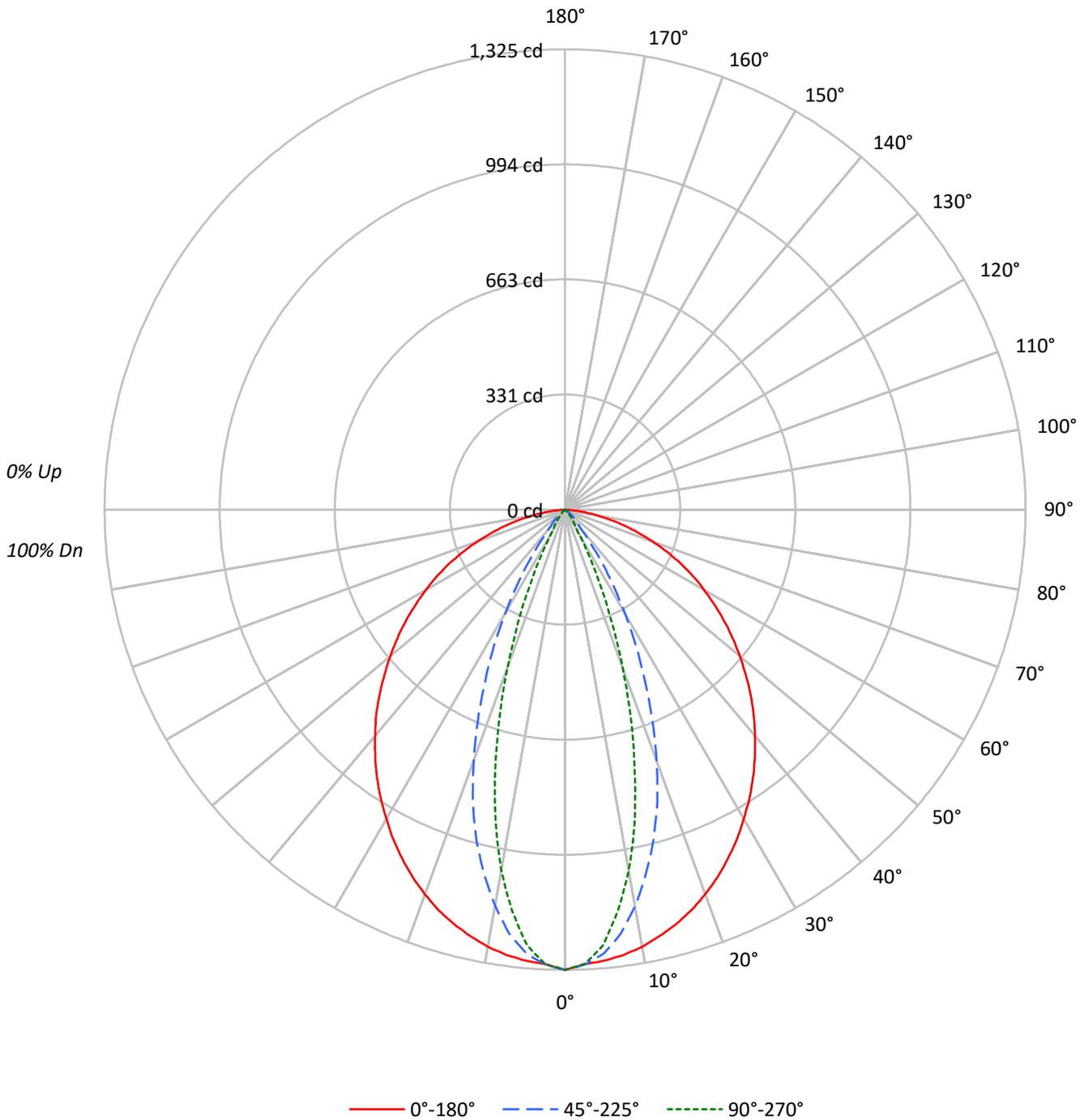
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1205.5 lumens  
Efficiency: N/A  
Efficacy: 28.8 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7  
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	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	56				
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52				
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49				
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43				

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

	0°	45°	90°
0°	25103	25103	25103
5°	24794	24389	23925
10°	24582	22297	20306
15°	24227	19298	15205
20°	23767	15506	9734
25°	23179	11366	4998
30°	22492	7429	1632
35°	21806	4122	951
40°	21020	1657	527
45°	20240	1101	204
50°	19347	628	88
55°	18464	301	50
60°	17487	114	0
65°	16457	67	0
70°	14762	83	0
75°	12708	110	0
80°	9634	0	0
85°	3978	326	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20240 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.8	9.9
10°-20°	276.0	22.9
20°-30°	280.2	23.2
30°-40°	210.3	17.4
40°-50°	147.2	12.2
50°-60°	90.1	7.5
60°-70°	53.7	4.5
70°-80°	24.7	2.1
80°-90°	4.4	0.4
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°	675.0	56.0
0°-40°	885.3	73.4
0°-60°	1122.6	93.1
0°-90°	1205.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1205.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1325	1325	1325	1325	1325	
5°	1304	1316	1282	1258	1258	124
15°	1235	1168	984	833	775	348
25°	1109	914	544	311	239	510
35°	943	614	178	53	41	589
45°	755	324	41	12	8	582
55°	559	99	9	3	2	500
65°	367	29	2	2	0	362
75°	174	3	2	2	0	184
85°	18	0	2	2	0	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1325.0	1325.0	1325.0	1325.0	1325.0
2.5°	1309.8	1329.6	1311.3	1308.3	1309.8
5°	1303.7	1315.9	1282.4	1258.0	1258.0
7.5°	1293.1	1293.1	1230.6	1180.4	1165.1
10°	1277.8	1261.1	1159.0	1078.3	1055.5
12.5°	1258.0	1218.4	1075.3	961.0	924.5
15°	1235.2	1168.2	983.9	833.1	775.2
17.5°	1209.3	1111.8	881.8	694.5	627.5
20°	1178.8	1050.9	769.1	552.9	482.8
22.5°	1145.3	983.9	654.9	426.5	351.8
25°	1108.8	913.8	543.7	310.7	239.1
27.5°	1070.7	840.7	441.7	213.2	146.2
30°	1028.1	764.6	339.6	126.4	74.6
32.5°	986.9	691.5	254.3	68.5	54.8
35°	942.8	613.8	178.2	53.3	41.1
37.5°	897.1	540.7	109.7	39.6	30.5
40°	849.9	466.1	67.0	28.9	21.3
42.5°	804.2	396.0	53.3	19.8	13.7
45°	755.4	324.4	41.1	12.2	7.6
47.5°	705.2	258.9	30.5	7.6	4.6
50°	656.4	201.0	21.3	4.6	3.0
52.5°	607.7	147.7	13.7	3.0	1.5
55°	559.0	99.0	9.1	3.0	1.5
57.5°	510.2	70.1	6.1	1.5	1.5
60°	461.5	54.8	3.0	1.5	0.0
62.5°	415.8	42.6	3.0	1.5	1.5
65°	367.1	28.9	1.5	1.5	0.0
67.5°	315.3	18.3	1.5	1.5	0.0
70°	266.5	10.7	1.5	1.5	0.0
72.5°	219.3	6.1	1.5	1.5	0.0
75°	173.6	3.0	1.5	1.5	0.0
77.5°	129.5	1.5	0.0	1.5	0.0
80°	88.3	0.0	0.0	1.5	0.0
82.5°	51.8	0.0	0.0	1.5	0.0
85°	18.3	0.0	1.5	1.5	0.0
87.5°	0.0	0.0	1.5	1.5	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)