

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: P1055259

Luminaire Tested: S122R3DR-S865D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055259  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D840-X4F0-XX-UDD-FLL-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

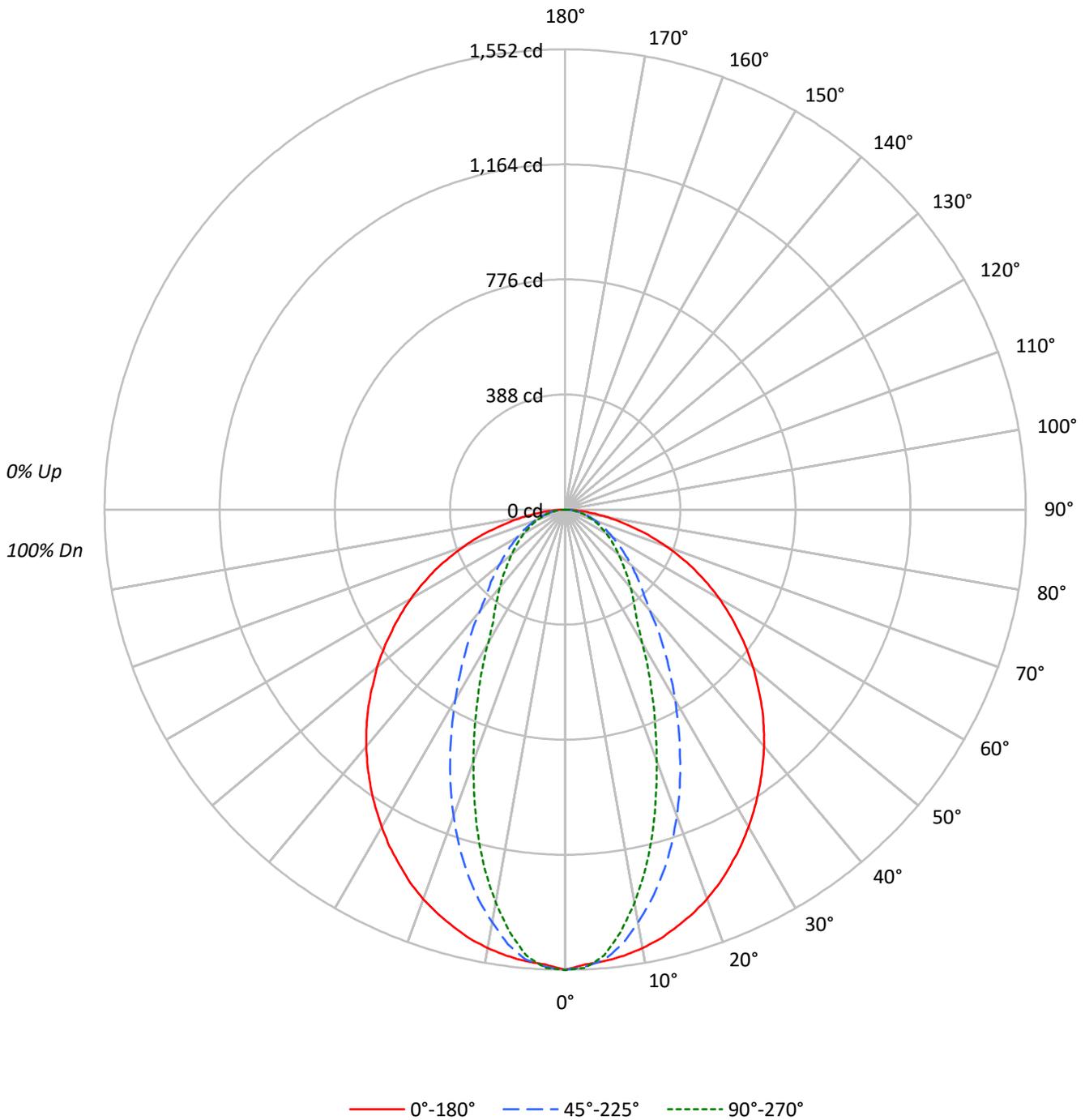
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2347.6 lumens  
Efficiency: N/A  
Efficacy: 67.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' 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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				

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

	0°	45°	90°
0°	29406	29406	29406
5°	29073	28974	28704
10°	28886	27187	25891
15°	28560	24920	22272
20°	28180	22162	18184
25°	27617	19153	14514
30°	27029	16182	11328
35°	26413	13537	9515
40°	25773	10976	8473
45°	25105	9597	7580
50°	24367	8492	6924
55°	23535	7673	6431
60°	22720	6983	5998
65°	21644	6402	5644
70°	20058	5966	5318
75°	17766	5417	5036
80°	15155	5095	4670
85°	10434	4521	4239

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25105 cd/sqm



TEST NUMBER: P105259

CATALOG NUMBER: S122R3DR-S865D840-X4F0-XX-UDD-FLL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.2	6.1
10°-20°	359.1	15.3
20°-30°	442.5	18.8
30°-40°	424.5	18.1
40°-50°	366.2	15.6
50°-60°	284.1	12.1
60°-70°	194.5	8.3
70°-80°	105.6	4.5
80°-90°	28.9	1.2
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°	943.8	40.2
0°-40°	1368.3	58.3
0°-60°	2018.6	86.0
0°-90°	2347.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2347.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1552	1552	1552	1552	1552	
5°	1529	1551	1524	1504	1509	145
15°	1456	1412	1270	1167	1136	411
25°	1321	1180	916	748	694	609
35°	1142	906	585	436	411	714
45°	937	631	358	296	283	722
55°	712	379	232	201	195	638
65°	483	206	143	130	126	477
75°	243	95	74	70	69	260
85°	48	23	21	21	20	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1552.1	1552.1	1552.1	1552.1	1552.1
2.5°	1535.2	1561.2	1543.0	1543.0	1546.9
5°	1528.7	1550.8	1523.5	1504.1	1509.3
7.5°	1517.1	1532.6	1478.1	1436.6	1435.3
10°	1501.5	1502.8	1413.2	1358.7	1345.8
12.5°	1482.0	1461.3	1347.1	1265.3	1245.8
15°	1456.1	1411.9	1270.5	1166.7	1135.5
17.5°	1428.8	1361.3	1188.7	1059.0	1016.1
20°	1397.7	1300.3	1099.2	951.2	901.9
22.5°	1362.6	1241.9	1009.6	847.4	795.5
25°	1321.1	1179.6	916.2	747.5	694.3
27.5°	1280.9	1116.1	826.7	659.3	604.7
30°	1235.5	1047.3	739.7	574.9	517.8
32.5°	1190.0	977.2	659.3	494.4	451.6
35°	1142.0	905.8	585.3	436.0	411.4
37.5°	1092.7	835.7	515.2	397.1	375.0
40°	1042.1	765.7	443.8	359.5	342.6
42.5°	990.2	696.9	394.5	328.3	312.8
45°	937.0	630.7	358.2	295.9	282.9
47.5°	879.9	564.5	323.1	268.6	257.0
50°	826.7	500.9	288.1	244.0	234.9
52.5°	769.6	438.6	259.5	221.9	214.1
55°	712.5	378.9	232.3	201.2	194.7
57.5°	656.7	321.8	206.3	181.7	176.5
60°	599.6	276.4	184.3	163.5	158.3
62.5°	541.2	240.1	163.5	146.6	141.5
65°	482.8	206.3	142.8	129.8	125.9
67.5°	421.8	173.9	124.6	114.2	111.6
70°	362.1	145.3	107.7	98.6	96.0
72.5°	303.7	118.1	90.8	84.4	81.8
75°	242.7	94.7	74.0	70.1	68.8
77.5°	189.5	74.0	59.7	57.1	55.8
80°	138.9	54.5	46.7	44.1	42.8
82.5°	92.1	37.6	33.7	32.4	31.1
85°	48.0	23.4	20.8	20.8	19.5
87.5°	15.6	10.4	10.4	10.4	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)