

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: P1056045

Luminaire Tested: S124R3DR-S575D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056045  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S575D850-X4F0-XX-UDD-FLL-W  
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

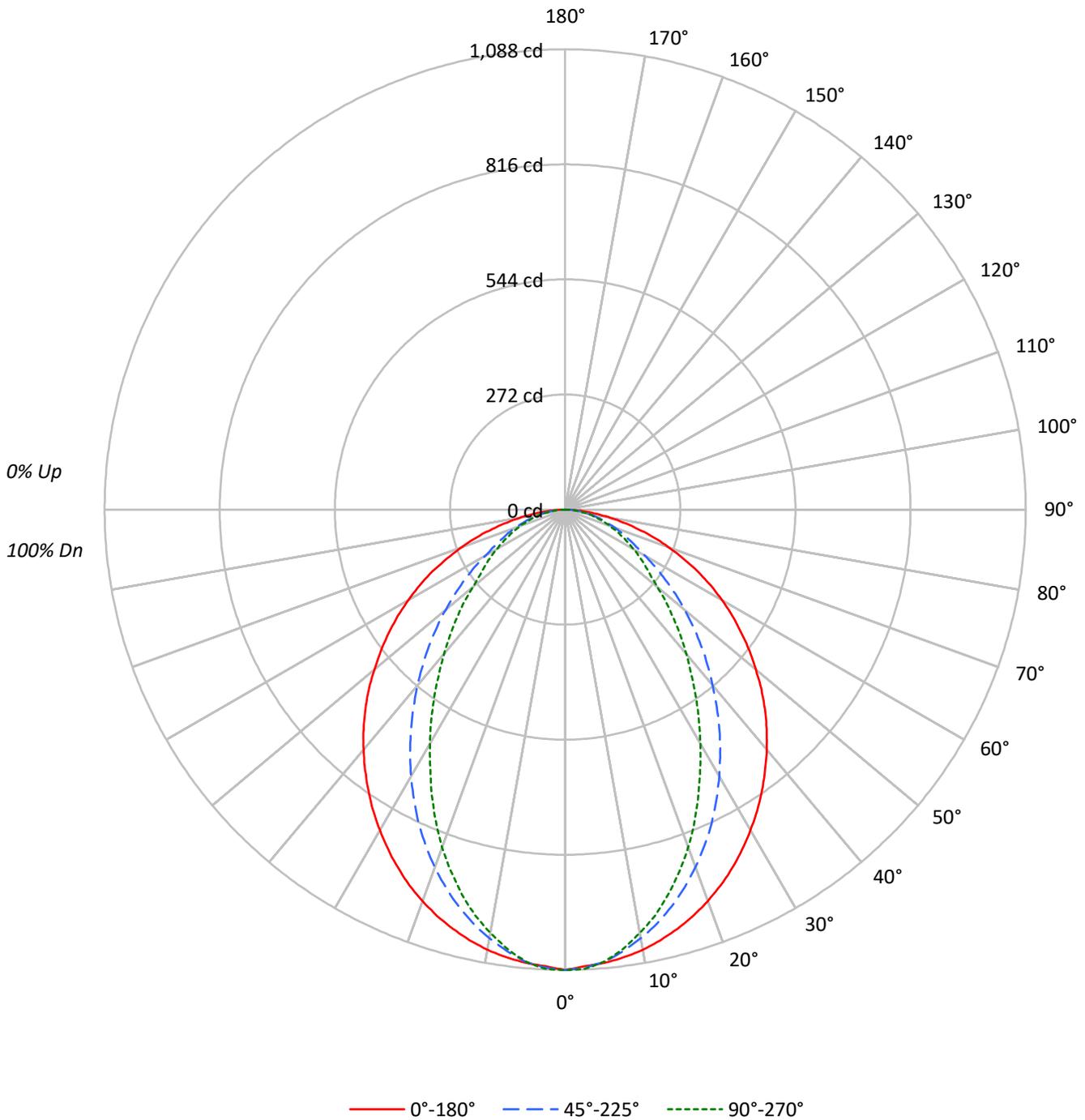
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2167.7 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
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									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	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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86													86															
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73													73															
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63													63															
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55													55															
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49													49															
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43													43															
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39													39															
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35													35															
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32													32															
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29													29															

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

	0°	45°	90°
0°	9623	9623	9623
5°	9546	9524	9517
10°	9490	9239	9124
15°	9390	8891	8621
20°	9269	8470	7995
25°	9117	7985	7266
30°	8936	7432	6525
35°	8748	6855	5809
40°	8550	6258	5139
45°	8341	5678	4516
50°	8085	5067	3899
55°	7838	4456	3542
60°	7563	3823	3285
65°	7222	3469	3067
70°	6708	3208	2898
75°	6074	2955	2736
80°	5300	2734	2571
85°	4058	2516	2353

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8341 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.3	4.7
10°-20°	274.9	12.7
20°-30°	380.6	17.6
30°-40°	408.5	18.8
40°-50°	371.5	17.1
50°-60°	292.5	13.5
60°-70°	200.2	9.2
70°-80°	107.8	5.0
80°-90°	30.5	1.4
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°	756.8	34.9
0°-40°	1165.2	53.8
0°-60°	1829.2	84.4
0°-90°	2167.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2167.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1088	1088	1088	1088	1088	
5°	1076	1088	1073	1068	1072	102
15°	1026	1015	971	945	942	289
25°	935	896	818	759	745	430
35°	810	747	635	558	538	507
45°	667	582	454	376	361	514
55°	508	412	289	233	230	455
65°	345	247	166	147	147	341
75°	178	108	86	79	80	190
85°	40	27	25	23	23	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1088.4	1088.4	1088.4	1088.4	1088.4
2.5°	1080.4	1093.2	1083.6	1085.2	1086.8
5°	1075.6	1087.6	1073.1	1067.5	1072.3
7.5°	1067.5	1075.6	1053.1	1042.7	1047.5
10°	1057.1	1058.7	1029.1	1013.9	1016.3
12.5°	1042.7	1038.7	1002.7	981.1	982.7
15°	1025.9	1014.7	971.4	945.0	941.8
17.5°	1006.7	988.3	937.0	903.4	897.0
20°	985.1	960.2	900.2	856.9	849.7
22.5°	961.0	929.0	860.1	808.9	798.5
25°	934.6	896.2	818.5	759.2	744.8
27.5°	905.8	860.9	773.6	708.8	690.3
30°	875.3	824.1	728.0	658.3	639.1
32.5°	844.1	786.4	681.5	607.9	587.8
35°	810.5	747.2	635.1	558.2	538.2
37.5°	776.0	706.4	587.8	510.1	489.3
40°	740.8	665.5	542.2	462.1	445.3
42.5°	704.8	623.9	497.3	417.2	402.0
45°	667.1	582.2	454.1	375.6	361.2
47.5°	628.7	539.8	410.0	336.4	322.7
50°	587.8	497.3	368.4	297.9	283.5
52.5°	548.6	454.1	328.4	260.3	253.1
55°	508.5	411.6	289.1	233.0	229.8
57.5°	468.5	369.2	253.1	211.4	208.2
60°	427.7	327.6	216.2	189.0	185.8
62.5°	386.8	286.7	189.0	167.4	165.8
65°	345.2	246.7	165.8	147.4	146.6
67.5°	301.1	208.2	145.0	129.7	128.9
70°	259.5	169.8	124.1	112.1	112.1
72.5°	220.2	134.5	104.9	95.3	95.3
75°	177.8	108.1	86.5	79.3	80.1
77.5°	140.2	84.9	69.7	64.9	64.9
80°	104.1	63.3	53.7	49.7	50.5
82.5°	70.5	44.0	38.4	36.0	36.0
85°	40.0	27.2	24.8	23.2	23.2
87.5°	14.4	12.8	12.0	10.4	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)