

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: P1056475

Luminaire Tested: S125R3DR-S850D850-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056475  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S850D850-X4F0-XX-UDD-FLL-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

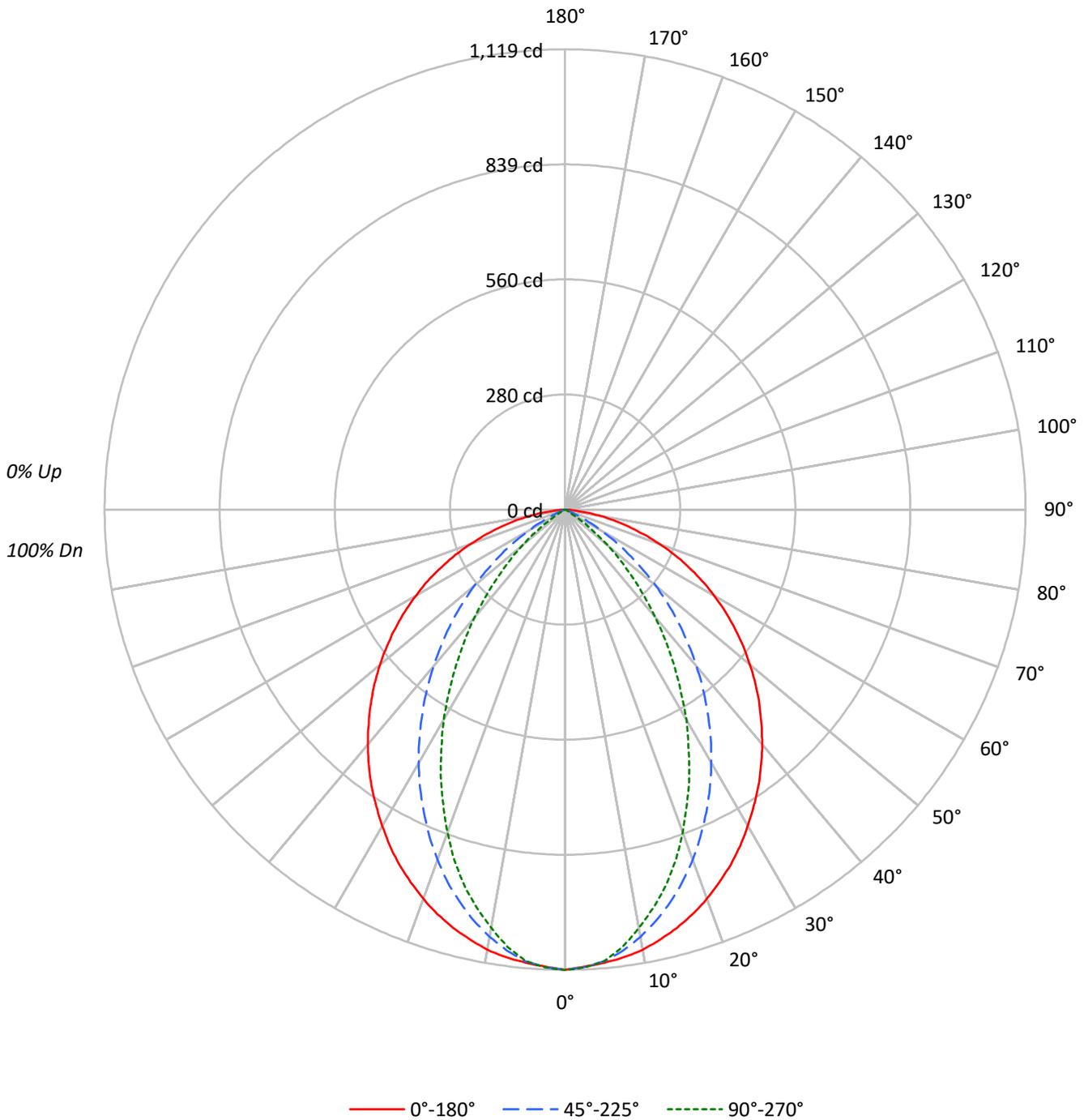
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1813.7 lumens  
Efficiency: N/A  
Efficacy: 68.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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				100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78				78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69				69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61				61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55				55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49				49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45				45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34				34

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

	0°	45°	90°
0°	7911	7911	7911
5°	7846	7822	7814
10°	7801	7571	7412
15°	7702	7232	6924
20°	7576	6817	6282
25°	7430	6332	5571
30°	7251	5803	4816
35°	7073	5216	3981
40°	6877	4585	3152
45°	6674	3914	2284
50°	6452	3159	1476
55°	6206	2310	656
60°	5911	1427	188
65°	5547	520	112
70°	5021	184	45
75°	4362	60	30
80°	3342	45	0
85°	1533	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.9	5.7
10°-20°	279.1	15.4
20°-30°	377.6	20.8
30°-40°	387.8	21.4
40°-50°	321.3	17.7
50°-60°	206.3	11.4
60°-70°	99.6	5.5
70°-80°	33.7	1.9
80°-90°	4.3	0.2
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°	760.6	41.9
0°-40°	1148.4	63.3
0°-60°	1676.0	92.4
0°-90°	1813.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1813.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1106	1114	1102	1096	1101	105
15°	1052	1039	988	954	946	297
25°	953	906	812	739	714	438
35°	820	741	604	499	461	512
45°	668	558	392	271	228	515
55°	504	369	187	82	53	450
65°	332	183	31	9	7	328
75°	160	34	2	1	1	169
85°	19	0	0	0	0	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1119.0	1119.0	1119.0	1119.0	1119.0
2.5°	1112.3	1121.2	1113.4	1112.3	1114.5
5°	1105.7	1114.5	1102.3	1095.7	1101.2
7.5°	1097.9	1102.3	1081.3	1070.2	1072.4
10°	1086.8	1085.7	1054.7	1035.8	1032.5
12.5°	1070.2	1064.6	1023.6	997.0	991.4
15°	1052.4	1039.1	988.1	953.7	946.0
17.5°	1031.4	1010.3	949.3	904.9	893.9
20°	1007.0	978.1	906.1	851.7	835.1
22.5°	980.4	943.8	860.6	796.3	774.1
25°	952.6	906.1	811.8	738.6	714.2
27.5°	921.6	867.2	763.0	679.8	649.9
30°	888.3	826.2	710.9	619.9	590.0
32.5°	853.9	785.2	658.7	560.0	523.4
35°	819.6	740.8	604.4	499.1	461.3
37.5°	783.0	696.5	551.2	441.4	400.3
40°	745.2	651.0	496.8	381.5	341.6
42.5°	706.4	604.4	442.5	324.9	283.9
45°	667.6	557.8	391.5	270.6	228.5
47.5°	627.7	510.1	338.2	217.4	180.8
50°	586.7	463.6	287.2	169.7	134.2
52.5°	545.6	415.9	235.1	123.1	90.9
55°	503.5	369.3	187.4	82.1	53.2
57.5°	461.3	321.6	143.1	45.5	20.0
60°	418.1	276.1	100.9	15.5	13.3
62.5°	376.0	227.3	63.2	12.2	10.0
65°	331.6	183.0	31.1	8.9	6.7
67.5°	288.3	140.8	13.3	5.5	3.3
70°	242.9	102.0	8.9	3.3	2.2
72.5°	200.7	65.4	5.5	2.2	1.1
75°	159.7	34.4	2.2	1.1	1.1
77.5°	119.8	14.4	1.1	1.1	1.1
80°	82.1	6.7	1.1	1.1	0.0
82.5°	48.8	2.2	1.1	1.1	0.0
85°	18.9	0.0	0.0	0.0	0.0
87.5°	1.1	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)