

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: P1057807

Luminaire Tested: S122RDR-S1005D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057807  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S1005D840-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

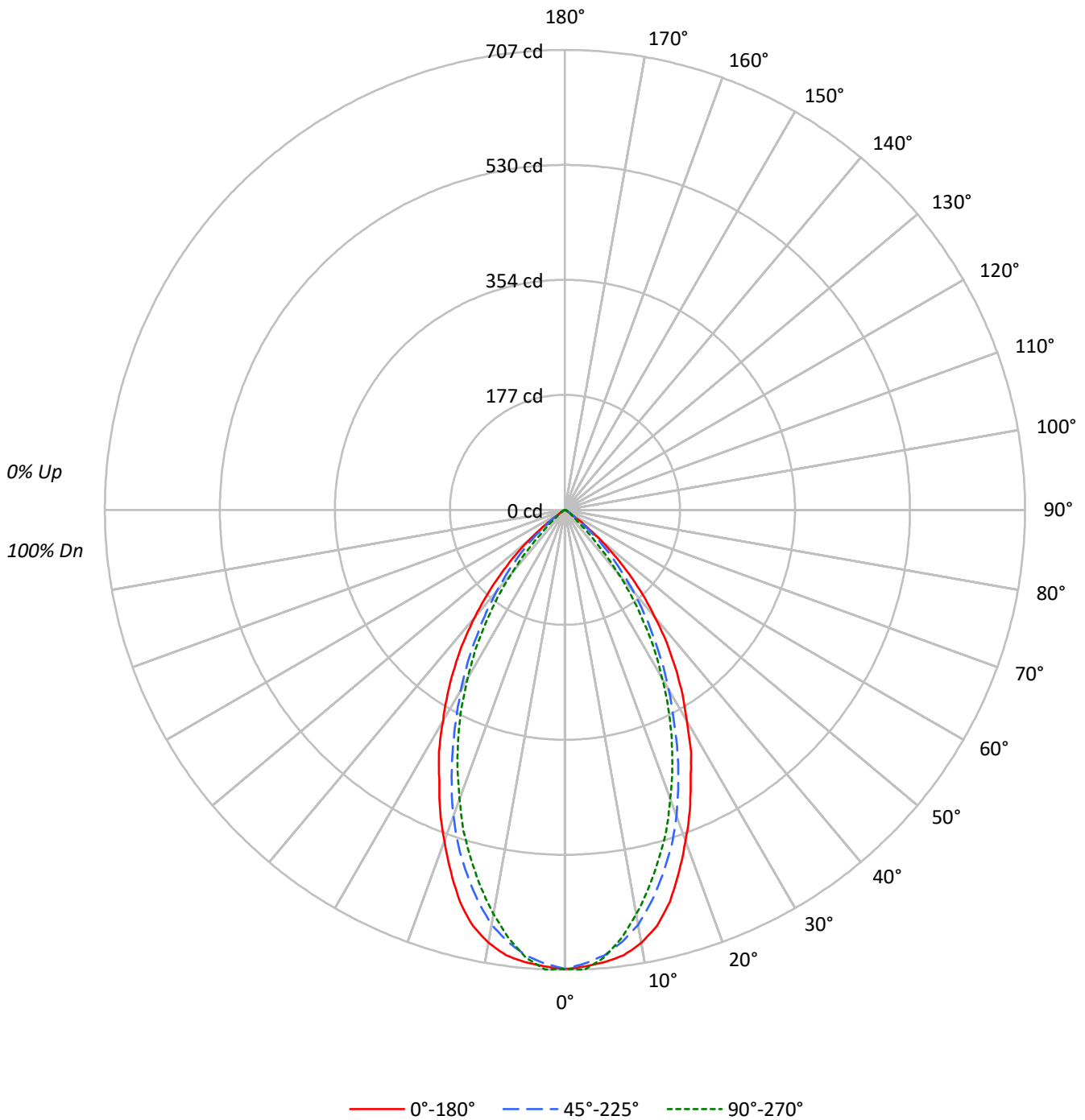
Lumens per Lamp: N/A  
Luminaire Lumens: 663.6 lumens  
Efficiency: N/A  
Efficacy: 15.9 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 41.8  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

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

	0°	45°	90°
0°	13022	13022	13022
5°	12933	12740	12796
10°	12664	12132	11825
15°	11913	11088	10631
20°	10635	9844	9286
25°	9294	8323	7898
30°	7979	6803	6358
35°	6654	5309	4773
40°	5174	3917	3054
45°	3622	2610	1323
50°	1969	1369	471
55°	290	479	335
60°	55	111	221
65°	0	65	131
70°	0	0	81
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3622 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	9.8
10°-20°	163.4	24.6
20°-30°	190.5	28.7
30°-40°	152.7	23.0
40°-50°	75.8	11.4
50°-60°	15.0	2.3
60°-70°	1.3	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	418.7	63.1
0°-40°	571.4	86.1
0°-60°	662.2	99.8
0°-90°	663.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	663.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	698	698	688	689	691	66
15°	624	612	580	565	556	173
25°	456	434	409	400	388	210
35°	295	266	236	225	212	184
45°	139	122	100	67	51	107
55°	9	18	15	9	10	18
65°	0	0	2	2	3	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	705.7	705.7	705.7	705.7	705.7
2.5°	702.7	705.7	698.2	705.7	707.2
5°	698.2	698.2	687.8	689.3	690.8
7.5°	690.8	687.8	669.9	666.9	663.9
10°	675.9	669.9	647.5	635.6	631.1
12.5°	655.0	646.0	616.2	602.7	595.3
15°	623.6	611.7	580.4	565.4	556.5
17.5°	583.4	572.9	543.1	526.7	517.7
20°	541.6	526.7	501.3	484.9	472.9
22.5°	501.3	481.9	455.0	443.1	431.2
25°	456.5	434.2	408.8	399.8	387.9
27.5°	419.2	390.9	361.1	355.1	344.6
30°	374.5	347.6	319.3	310.3	298.4
32.5°	335.7	305.8	277.5	267.1	256.6
35°	295.4	265.6	235.7	225.3	211.9
37.5°	256.6	228.3	198.4	182.0	170.1
40°	214.8	191.0	162.6	141.7	126.8
42.5°	177.5	156.7	129.8	102.9	88.0
45°	138.8	122.3	100.0	67.1	50.7
47.5°	102.9	91.0	73.1	38.8	26.9
50°	68.6	64.2	47.7	19.4	16.4
52.5°	37.3	40.3	28.3	11.9	13.4
55°	9.0	17.9	14.9	9.0	10.4
57.5°	1.5	3.0	7.5	7.5	7.5
60°	1.5	1.5	3.0	4.5	6.0
62.5°	1.5	0.0	1.5	3.0	4.5
65°	0.0	0.0	1.5	1.5	3.0
67.5°	0.0	0.0	0.0	1.5	1.5
70°	0.0	0.0	0.0	1.5	1.5
72.5°	0.0	0.0	0.0	0.0	1.5
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)