

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: P1057813

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057813  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S1005D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

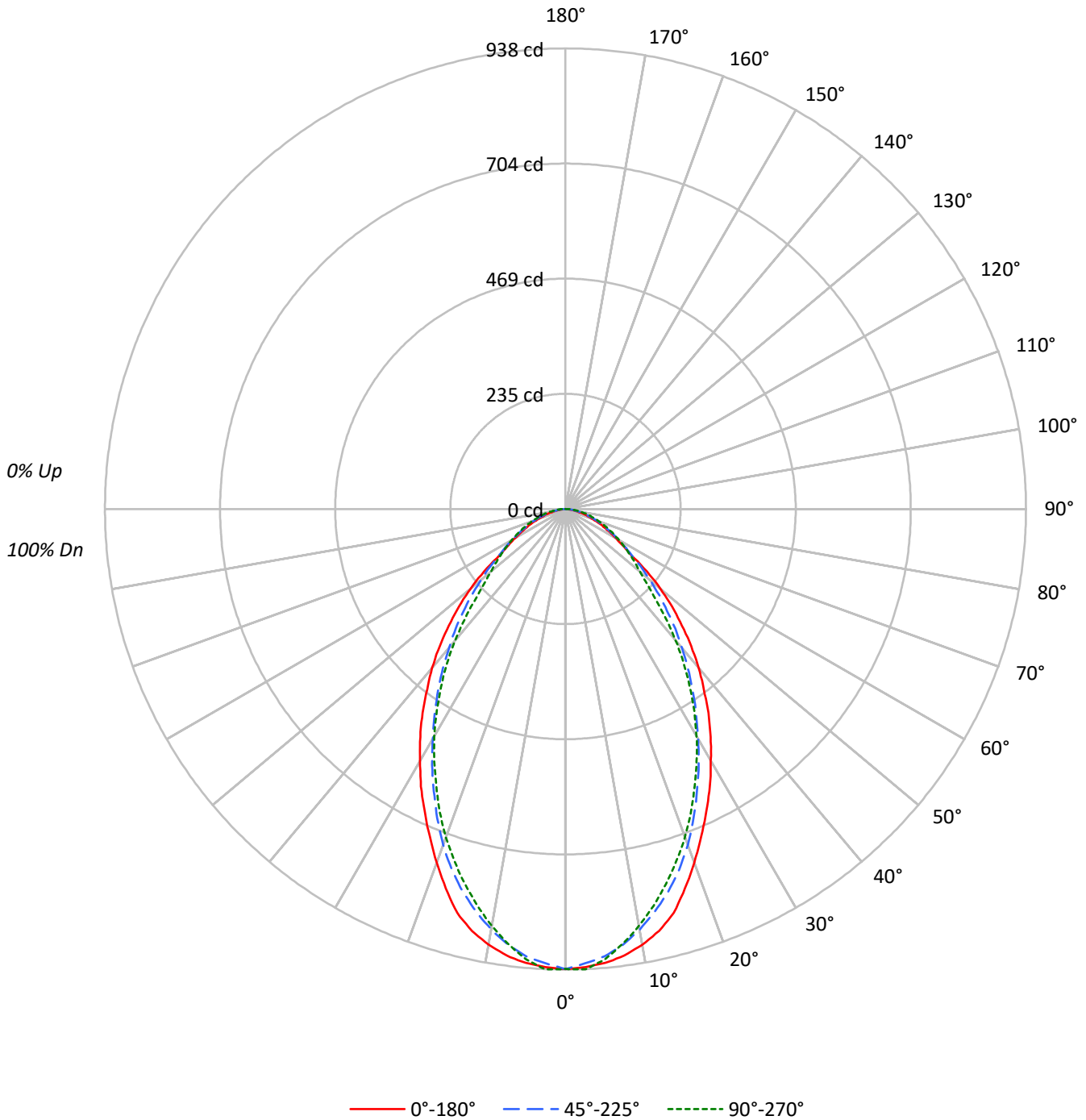
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1423.0 lumens  
Efficiency: N/A  
Efficacy: 34.0 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				

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

	0°	45°	90°
0°	17290	17290	17290
5°	17189	16941	17052
10°	16886	16298	16159
15°	16274	15420	15107
20°	15059	14297	13975
25°	13822	12910	12668
30°	12620	11508	11380
35°	11428	10184	9948
40°	10170	8876	8409
45°	8760	7630	6735
50°	7237	6425	5652
55°	5231	5328	5089
60°	4351	4569	4624
65°	3711	3973	4235
70°	3059	3539	3863
75°	2552	2980	3508
80°	1902	2380	3167
85°	635	1270	2837

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8760 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.6	6.1
10°-20°	228.1	16.0
20°-30°	295.2	20.7
30°-40°	289.5	20.3
40°-50°	228.0	16.0
50°-60°	149.4	10.5
60°-70°	91.0	6.4
70°-80°	45.5	3.2
80°-90°	9.8	0.7
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°	609.9	42.9
0°-40°	899.4	63.2
0°-60°	1276.8	89.7
0°-90°	1423.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1423.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	928	928	915	921	921	88
15°	852	840	807	797	791	237
25°	679	656	634	631	622	312
35°	507	479	452	451	442	316
45°	336	315	292	272	258	259
55°	163	172	166	160	158	154
65°	85	86	91	96	97	85
75°	36	37	42	48	49	38
85°	3	4	6	10	13	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	937.0	937.0	937.0	937.0	937.0
2.5°	934.0	935.5	926.5	935.5	938.5
5°	928.0	928.0	914.6	920.6	920.6
7.5°	917.6	916.1	895.2	895.2	893.7
10°	901.2	895.2	869.8	865.4	862.4
12.5°	880.3	869.8	840.0	832.5	828.1
15°	851.9	840.0	807.2	796.7	790.8
17.5°	810.2	798.2	769.9	757.9	752.0
20°	766.9	749.0	728.1	717.7	711.7
22.5°	722.1	701.2	681.8	674.4	668.4
25°	678.9	656.5	634.1	631.1	622.2
27.5°	637.1	610.2	587.8	586.4	578.9
30°	592.3	564.0	540.1	541.6	534.1
32.5°	550.5	523.7	495.3	496.8	487.9
35°	507.3	478.9	452.1	450.6	441.6
37.5°	462.5	435.7	410.3	404.3	395.4
40°	422.2	395.4	368.5	358.1	349.1
42.5°	379.0	355.1	331.2	314.8	302.9
45°	335.7	314.8	292.4	271.5	258.1
47.5°	293.9	277.5	258.1	232.8	223.8
50°	252.1	240.2	223.8	201.4	196.9
52.5°	208.9	204.4	194.0	179.0	177.5
55°	162.6	171.6	165.6	159.6	158.2
57.5°	137.3	138.8	143.2	141.7	141.7
60°	117.9	117.9	123.8	125.3	125.3
62.5°	100.0	101.5	107.4	110.4	110.4
65°	85.0	86.5	91.0	95.5	97.0
67.5°	70.1	73.1	77.6	82.1	83.6
70°	56.7	59.7	65.6	70.1	71.6
72.5°	46.3	47.7	53.7	58.2	59.7
75°	35.8	37.3	41.8	47.7	49.2
77.5°	25.4	28.3	32.8	37.3	40.3
80°	17.9	19.4	22.4	28.3	29.8
82.5°	10.4	11.9	14.9	19.4	20.9
85°	3.0	4.5	6.0	10.4	13.4
87.5°	0.0	0.0	0.0	3.0	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)