

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: P1057809

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057809  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
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-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

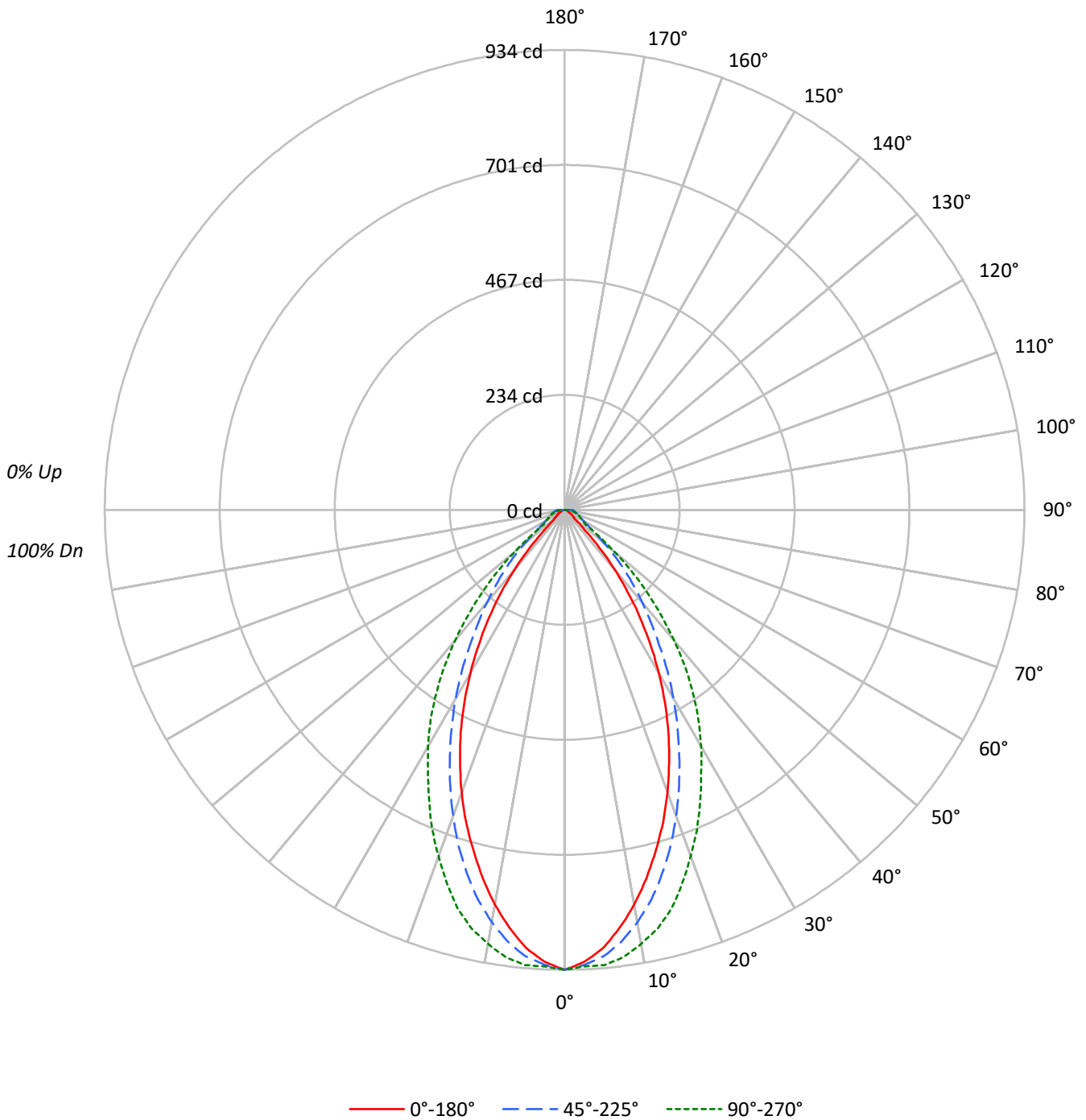
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1016.6 lumens  
Efficiency: N/A  
Efficacy: 24.3 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

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

	0°	45°	90°
0°	17235	17235	17235
5°	16554	16858	17189
10°	15261	15932	16773
15°	13674	14616	16016
20°	12002	12999	14702
25°	10162	11227	13267
30°	8152	9424	11813
35°	6026	7540	10234
40°	3779	5904	8315
45°	1482	4447	6161
50°	729	3003	3775
55°	576	1972	1683
60°	443	1598	1543
65°	327	1502	1502
70°	405	1532	1532
75°	428	1704	1597
80°	638	2221	1743
85°	1270	3790	2541

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 6938 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	8.4
10°-20°	215.7	21.2
20°-30°	258.0	25.4
30°-40°	217.2	21.4
40°-50°	123.6	12.2
50°-60°	48.8	4.8
60°-70°	30.7	3.0
70°-80°	22.8	2.2
80°-90°	14.5	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°	559.0	55.0
0°-40°	776.1	76.3
0°-60°	948.5	93.3
0°-90°	1016.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1016.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	894	913	910	921	928	83
15°	716	741	765	810	838	200
25°	499	522	551	608	652	227
35°	268	291	335	406	454	166
45°	57	100	170	214	236	54
55°	18	39	61	63	52	16
65°	8	34	34	33	34	8
75°	6	24	24	22	22	7
85°	6	16	18	16	12	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	934.0	934.0	934.0	934.0	934.0
2.5°	919.1	935.5	925.0	926.5	928.0
5°	893.7	913.1	910.1	920.6	928.0
7.5°	856.3	877.2	884.7	902.6	916.1
10°	814.5	838.4	850.3	878.7	895.2
12.5°	766.6	793.5	811.5	847.3	871.2
15°	715.8	741.2	765.1	810.0	838.4
17.5°	665.0	690.4	715.8	765.1	795.0
20°	611.2	635.1	662.0	714.3	748.7
22.5°	554.4	579.8	606.7	660.5	702.4
25°	499.1	521.6	551.4	608.2	651.6
27.5°	440.9	463.3	496.1	554.4	600.8
30°	382.6	405.0	442.3	502.1	554.4
32.5°	324.3	348.2	388.5	454.3	506.6
35°	267.5	291.4	334.7	406.5	454.3
37.5°	212.2	239.1	286.9	357.2	402.0
40°	156.9	188.3	245.1	307.8	345.2
42.5°	104.6	143.5	206.2	258.5	289.9
45°	56.8	100.1	170.4	213.7	236.1
47.5°	31.4	64.3	136.0	170.4	183.8
50°	25.4	44.8	104.6	130.0	131.5
52.5°	20.9	40.3	77.7	92.7	85.2
55°	17.9	38.9	61.3	62.8	52.3
57.5°	14.9	37.4	50.8	44.8	44.8
60°	12.0	37.4	43.3	40.3	41.8
62.5°	9.0	37.4	38.9	35.9	37.4
65°	7.5	34.4	34.4	32.9	34.4
67.5°	7.5	31.4	31.4	29.9	31.4
70°	7.5	29.9	28.4	28.4	28.4
72.5°	6.0	26.9	26.9	25.4	25.4
75°	6.0	23.9	23.9	22.4	22.4
77.5°	6.0	22.4	22.4	20.9	19.4
80°	6.0	19.4	20.9	19.4	16.4
82.5°	6.0	17.9	19.4	17.9	13.4
85°	6.0	16.4	17.9	16.4	12.0
87.5°	4.5	16.4	16.4	13.4	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)