

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: P1060231

Luminaire Tested: S124RDR-S1020D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D835-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

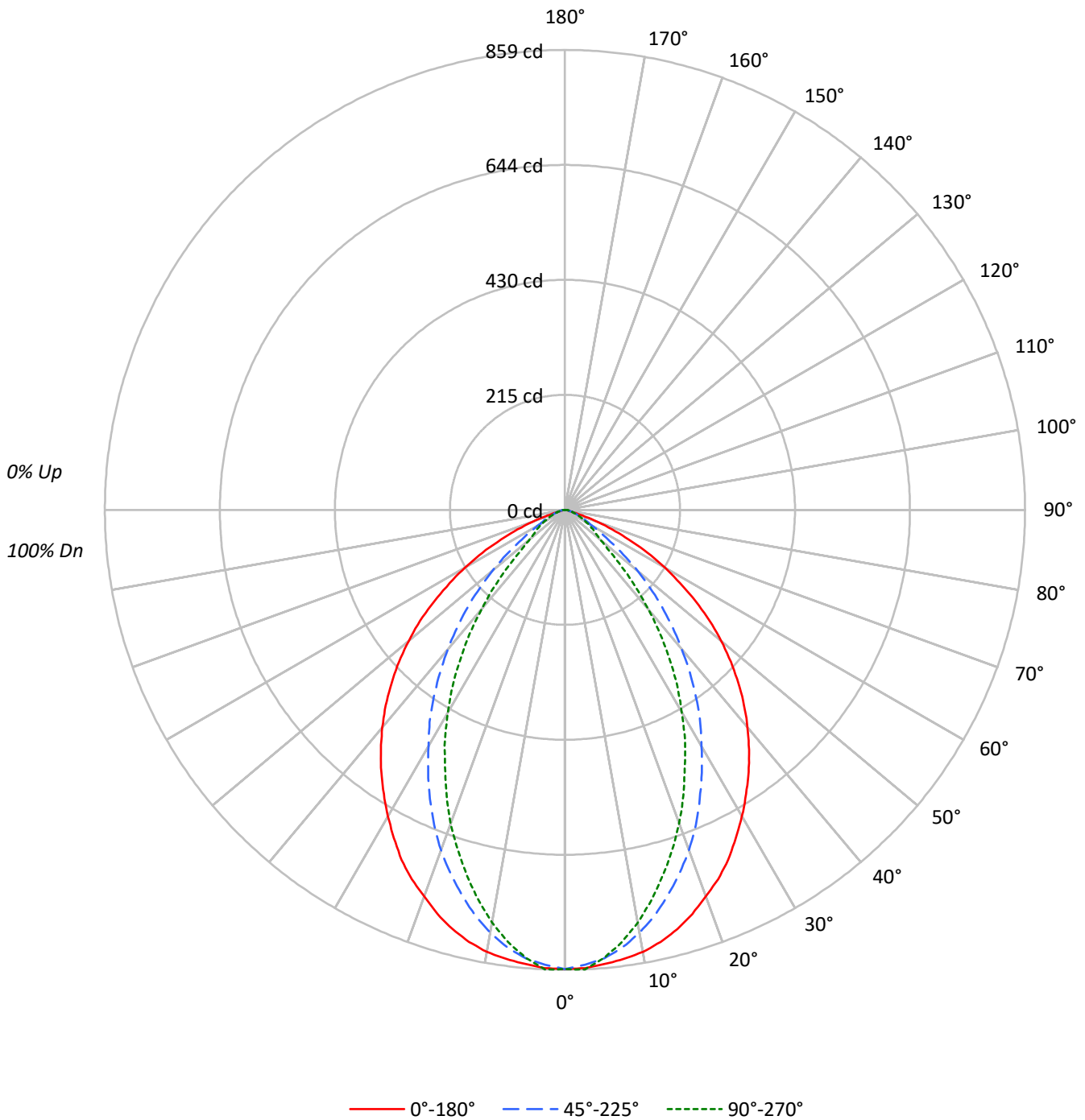
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1264.7 lumens  
Efficiency: N/A  
Efficacy: 36.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	7387	7387	7387
5°	7362	7269	7258
10°	7332	7014	6846
15°	7227	6634	6301
20°	7041	6200	5713
25°	6853	5659	5028
30°	6572	5069	4336
35°	6286	4483	3582
40°	5962	3816	2716
45°	5576	3119	1824
50°	5099	2363	1133
55°	4480	1560	961
60°	3705	958	791
65°	2683	738	640
70°	1460	546	486
75°	323	403	443
80°	238	298	357
85°	237	237	356

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5576 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.5	6.3
10°-20°	211.1	16.7
20°-30°	279.6	22.1
30°-40°	277.5	21.9
40°-50°	213.6	16.9
50°-60°	127.3	10.1
60°-70°	57.9	4.6
70°-80°	15.0	1.2
80°-90°	3.3	0.3
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°	570.2	45.1
0°-40°	847.7	67.0
0°-60°	1188.5	94.0
0°-90°	1264.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1264.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	852	853	841	841	840	81
15°	811	790	744	719	707	228
25°	721	669	596	546	529	331
35°	598	523	426	361	341	373
45°	458	368	256	179	150	353
55°	298	213	104	65	64	266
65°	132	78	36	31	31	132
75°	10	12	12	13	13	20
85°	2	2	2	4	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	857.8	857.8	857.8	857.8	857.8
2.5°	856.6	857.8	850.5	856.6	859.0
5°	851.7	853.0	840.9	840.9	839.7
7.5°	845.7	843.3	824.0	816.7	814.3
10°	838.5	830.0	802.2	787.7	782.9
12.5°	826.4	813.1	775.6	755.1	746.6
15°	810.7	790.1	744.2	718.8	706.8
17.5°	791.3	766.0	711.6	679.0	665.7
20°	768.4	734.6	676.6	635.5	623.4
22.5°	746.6	704.4	637.9	590.8	577.5
25°	721.3	669.3	595.6	546.1	529.2
27.5°	691.1	635.5	553.3	502.6	485.7
30°	660.9	599.2	509.8	456.7	436.1
32.5°	629.4	561.8	470.0	409.6	390.2
35°	598.0	523.1	426.5	361.2	340.7
37.5°	564.2	484.5	383.0	315.3	292.4
40°	530.4	447.0	339.5	270.6	241.6
42.5°	495.3	408.4	297.2	224.7	195.7
45°	457.9	368.5	256.1	178.8	149.8
47.5°	420.4	331.0	215.1	134.1	107.5
50°	380.6	291.2	176.4	97.9	84.6
52.5°	340.7	252.5	137.7	76.1	72.5
55°	298.4	212.6	103.9	65.2	64.0
57.5°	254.9	176.4	74.9	56.8	54.4
60°	215.1	142.6	55.6	48.3	45.9
62.5°	174.0	107.5	45.9	39.9	37.5
65°	131.7	78.5	36.2	31.4	31.4
67.5°	95.4	53.2	29.0	25.4	24.2
70°	58.0	32.6	21.7	20.5	19.3
72.5°	29.0	19.3	16.9	15.7	15.7
75°	9.7	12.1	12.1	13.3	13.3
77.5°	7.2	8.5	8.5	9.7	9.7
80°	4.8	6.0	6.0	7.2	7.2
82.5°	3.6	3.6	4.8	4.8	6.0
85°	2.4	2.4	2.4	3.6	3.6
87.5°	1.2	1.2	1.2	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)