

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: P1060235

Luminaire Tested: S124RDR-S1020D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060235  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D835-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

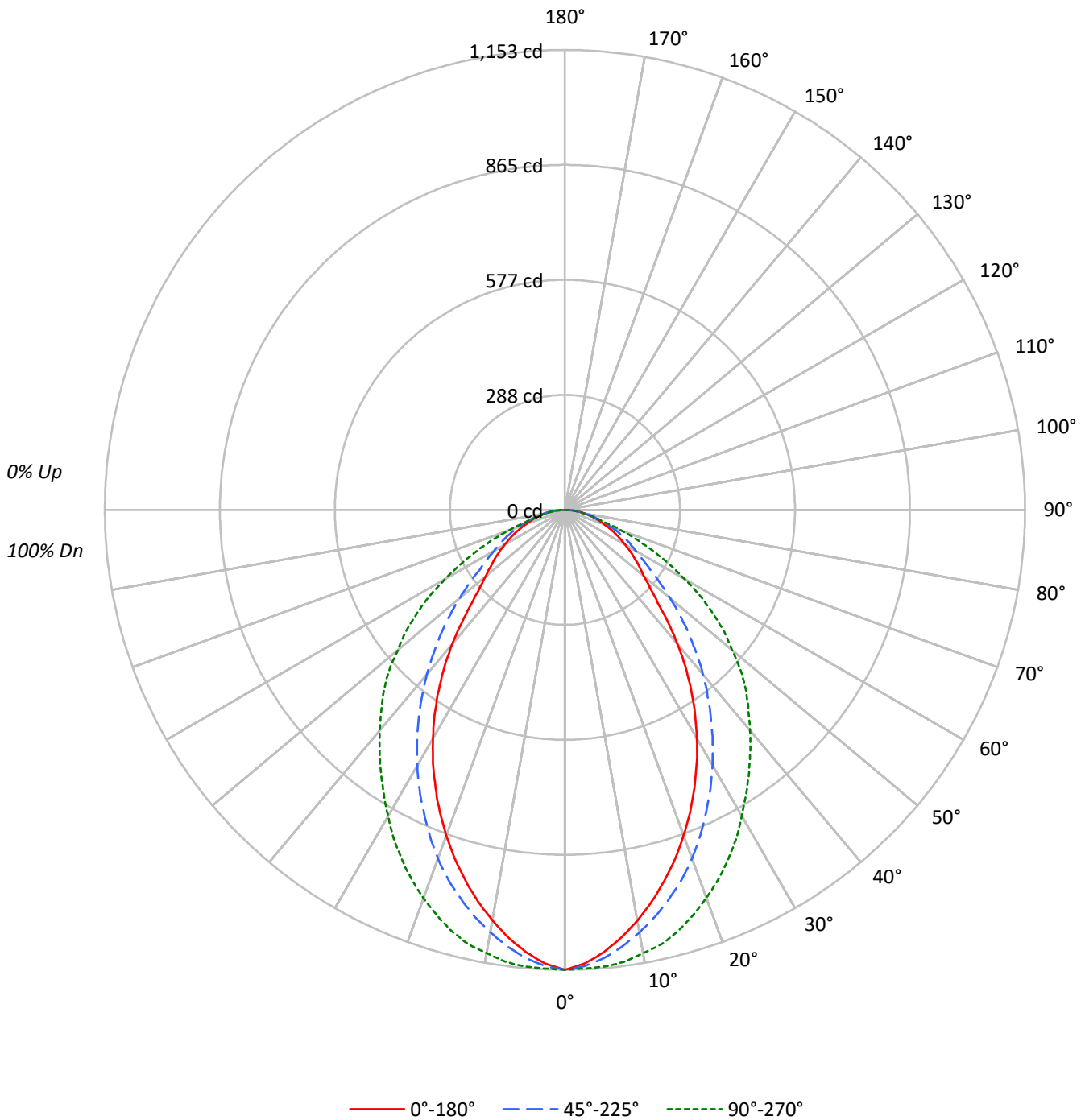
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2099.6 lumens  
Efficiency: N/A  
Efficacy: 60.0 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
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										
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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																				

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

	0°	45°	90°
0°	9930	9930	9930
5°	9623	9749	9937
10°	9143	9408	9873
15°	8578	8999	9753
20°	7965	8530	9494
25°	7293	7948	9189
30°	6574	7356	8811
35°	5794	6710	8451
40°	4933	6047	8113
45°	4004	5344	7817
50°	3466	4599	7320
55°	3213	3902	6787
60°	2998	3519	5954
65°	2808	3301	4951
70°	2618	3044	3744
75°	2492	2815	2695
80°	2336	2579	2276
85°	2154	2391	1788

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7817 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.5	5.1
10°-20°	286.2	13.6
20°-30°	390.8	18.6
30°-40°	409.4	19.5
40°-50°	354.4	16.9
50°-60°	266.3	12.7
60°-70°	171.7	8.2
70°-80°	88.0	4.2
80°-90°	26.3	1.3
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°	783.4	37.3
0°-40°	1192.9	56.8
0°-60°	1813.5	86.4
0°-90°	2099.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2099.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1113	1130	1128	1136	1150	104
15°	962	986	1009	1055	1094	270
25°	768	797	836	902	967	352
35°	551	583	638	723	804	343
45°	329	363	439	546	642	259
55°	214	221	260	371	452	192
65°	138	140	162	196	243	137
75°	75	83	85	83	81	79
85°	22	25	24	23	18	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1153.2	1153.2	1153.2	1153.2	1153.2
2.5°	1138.7	1153.2	1144.8	1147.2	1150.8
5°	1113.3	1130.3	1127.8	1136.3	1149.6
7.5°	1081.9	1100.0	1103.7	1123.0	1142.3
10°	1045.6	1066.2	1075.9	1104.9	1129.1
12.5°	1005.8	1027.5	1044.4	1080.7	1115.8
15°	962.2	986.4	1009.4	1055.3	1094.0
17.5°	917.5	941.7	971.9	1022.7	1066.2
20°	869.2	895.7	930.8	984.0	1036.0
22.5°	819.6	847.4	884.9	942.9	1003.3
25°	767.6	796.6	836.5	901.8	967.1
27.5°	715.6	744.6	789.4	858.3	929.6
30°	661.2	691.5	739.8	814.8	886.1
32.5°	606.8	639.5	689.0	768.8	845.0
35°	551.2	582.7	638.3	722.9	803.9
37.5°	495.6	528.3	587.5	678.2	762.8
40°	438.8	472.7	537.9	633.4	721.7
42.5°	382.0	418.3	487.2	587.5	680.6
45°	328.8	362.7	438.8	546.4	641.9
47.5°	288.9	311.9	390.5	506.5	598.4
50°	258.7	270.8	343.3	463.0	546.4
52.5°	235.7	244.2	299.8	415.8	504.1
55°	214.0	221.2	259.9	371.1	452.1
57.5°	194.6	198.2	229.7	327.6	402.5
60°	174.1	177.7	204.3	280.4	345.7
62.5°	155.9	158.4	183.7	235.7	293.7
65°	137.8	140.2	162.0	195.8	243.0
67.5°	120.9	124.5	141.4	159.6	193.4
70°	104.0	111.2	120.9	129.3	148.7
72.5°	89.5	96.7	101.5	104.0	105.2
75°	74.9	83.4	84.6	83.4	81.0
77.5°	60.4	67.7	67.7	65.3	62.9
80°	47.1	53.2	52.0	49.6	45.9
82.5°	35.1	38.7	37.5	35.1	31.4
85°	21.8	25.4	24.2	23.0	18.1
87.5°	10.9	14.5	13.3	12.1	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)