

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060233

Luminaire Tested: S124RDRP-S1020D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1020D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

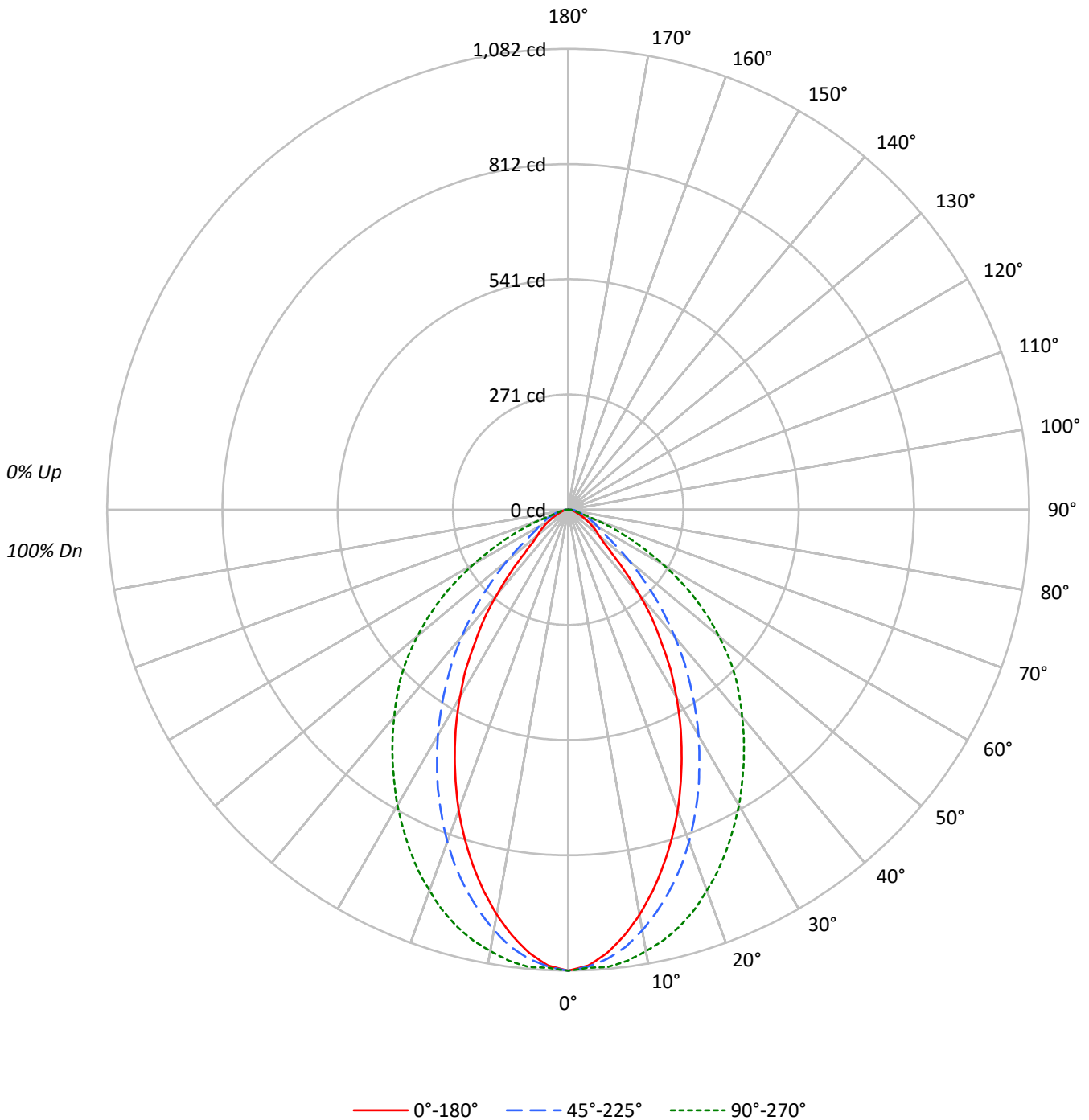
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1532.1 lumens  
Efficiency: N/A  
Efficacy: 43.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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 (A<sub>in</sub>): 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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	9322	9322	9322
5°	9033	9148	9315
10°	8439	8767	9200
15°	7699	8237	9025
20°	6883	7603	8722
25°	5987	6872	8366
30°	5051	6085	7974
35°	4018	5238	7552
40°	2923	4364	7138
45°	1767	3446	6760
50°	1263	2496	6189
55°	1072	1689	5465
60°	875	1374	4416
65°	691	1233	3179
70°	579	1035	1674
75°	522	965	845
80°	541	962	838
85°	721	1433	958

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6760 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.7	6.5
10°-20°	261.2	17.0
20°-30°	338.7	22.1
30°-40°	326.0	21.3
40°-50°	242.5	15.8
50°-60°	149.2	9.7
60°-70°	73.3	4.8
70°-80°	28.6	1.9
80°-90°	13.0	0.9
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°	699.5	45.7
0°-40°	1025.5	66.9
0°-60°	1417.2	92.5
0°-90°	1532.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1532.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1045	1061	1058	1068	1078	97
15°	864	891	924	980	1012	241
25°	630	664	723	814	880	288
35°	382	418	498	623	718	239
45°	145	180	283	437	555	121
55°	71	74	112	256	364	64
65°	34	36	60	97	156	35
75°	16	28	29	27	25	17
85°	7	13	14	14	10	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1082.5	1082.5	1082.5	1082.5	1082.5
2.5°	1071.6	1083.7	1074.0	1075.2	1076.4
5°	1045.0	1060.7	1058.3	1068.0	1077.6
7.5°	1008.7	1026.8	1035.3	1054.6	1068.0
10°	965.1	985.7	1002.6	1034.1	1052.2
12.5°	916.8	941.0	965.1	1007.5	1035.3
15°	863.6	891.4	924.0	979.7	1012.3
17.5°	809.1	836.9	879.3	943.4	984.5
20°	751.1	781.3	829.7	901.0	951.8
22.5°	690.6	723.3	776.5	857.5	918.0
25°	630.1	664.0	723.3	814.0	880.5
27.5°	569.7	602.3	666.4	768.0	840.6
30°	508.0	541.8	612.0	718.4	801.9
32.5°	448.7	480.2	555.1	671.2	759.5
35°	382.2	418.5	498.3	622.9	718.4
37.5°	325.3	358.0	443.9	574.5	677.3
40°	260.0	296.3	388.2	527.3	635.0
42.5°	199.6	235.8	335.0	480.2	595.1
45°	145.1	180.2	283.0	436.6	555.1
47.5°	110.1	130.6	232.2	394.3	510.4
50°	94.3	100.4	186.3	348.3	462.0
52.5°	83.5	85.9	145.1	302.4	413.6
55°	71.4	73.8	112.5	256.4	364.0
57.5°	60.5	61.7	90.7	212.9	310.8
60°	50.8	52.0	79.8	170.5	256.4
62.5°	42.3	43.5	71.4	131.8	204.4
65°	33.9	36.3	60.5	96.8	156.0
67.5°	27.8	32.7	50.8	67.7	108.9
70°	23.0	31.4	41.1	47.2	66.5
72.5°	19.4	29.0	35.1	33.9	32.7
75°	15.7	27.8	29.0	26.6	25.4
77.5°	13.3	24.2	24.2	21.8	20.6
80°	10.9	19.4	19.4	19.4	16.9
82.5°	9.7	15.7	16.9	16.9	13.3
85°	7.3	13.3	14.5	14.5	9.7
87.5°	4.8	12.1	13.3	12.1	7.3
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	7.54	8.88	7.91	9.20	9.51	16.71	18.05	17.07	18.36	18.68
	3H	8.65	9.84	9.03	10.17	10.54	17.22	18.41	17.60	18.74	19.10
	4H	9.17	10.28	9.57	10.63	11.01	17.24	18.35	17.64	18.70	19.08
	6H	9.60	10.62	10.02	10.99	11.39	17.25	18.27	17.66	18.64	19.03
	8H	9.79	10.76	10.22	11.15	11.56	17.25	18.22	17.68	18.61	19.01
	12H	9.98	10.90	10.41	11.29	11.72	17.25	18.18	17.69	18.56	18.99
4H	2H	8.69	9.80	9.09	10.15	10.53	16.60	17.71	17.00	18.06	18.44
	3H	10.03	10.94	10.44	11.34	11.74	17.19	18.10	17.60	18.50	18.91
	4H	10.76	11.57	11.20	11.99	12.44	17.25	18.06	17.68	18.48	18.92
	6H	11.37	12.07	11.83	12.52	12.99	17.33	18.03	17.79	18.47	18.94
	8H	11.61	12.27	12.08	12.72	13.19	17.35	18.01	17.82	18.46	18.93
	12H	11.85	12.43	12.34	12.91	13.39	17.40	17.98	17.88	18.46	18.93
8H	4H	11.23	11.88	11.70	12.33	12.80	17.21	17.86	17.68	18.31	18.78
	6H	12.08	12.62	12.58	13.11	13.59	17.33	17.87	17.84	18.37	18.85
	8H	12.49	12.97	13.01	13.48	13.98	17.42	17.90	17.94	18.42	18.91
	12H	12.91	13.34	13.42	13.83	14.40	17.54	17.97	18.05	18.46	19.03
12H	4H	11.28	11.86	11.77	12.35	12.82	17.18	17.76	17.67	18.24	18.72
	6H	12.21	12.70	12.73	13.21	13.70	17.32	17.80	17.84	18.32	18.81
	8H	12.73	13.16	13.25	13.66	14.23	17.45	17.88	17.96	18.37	18.94