

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: P1060279

Luminaire Tested: S124RDRP-S1020D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060279  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1020D935-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

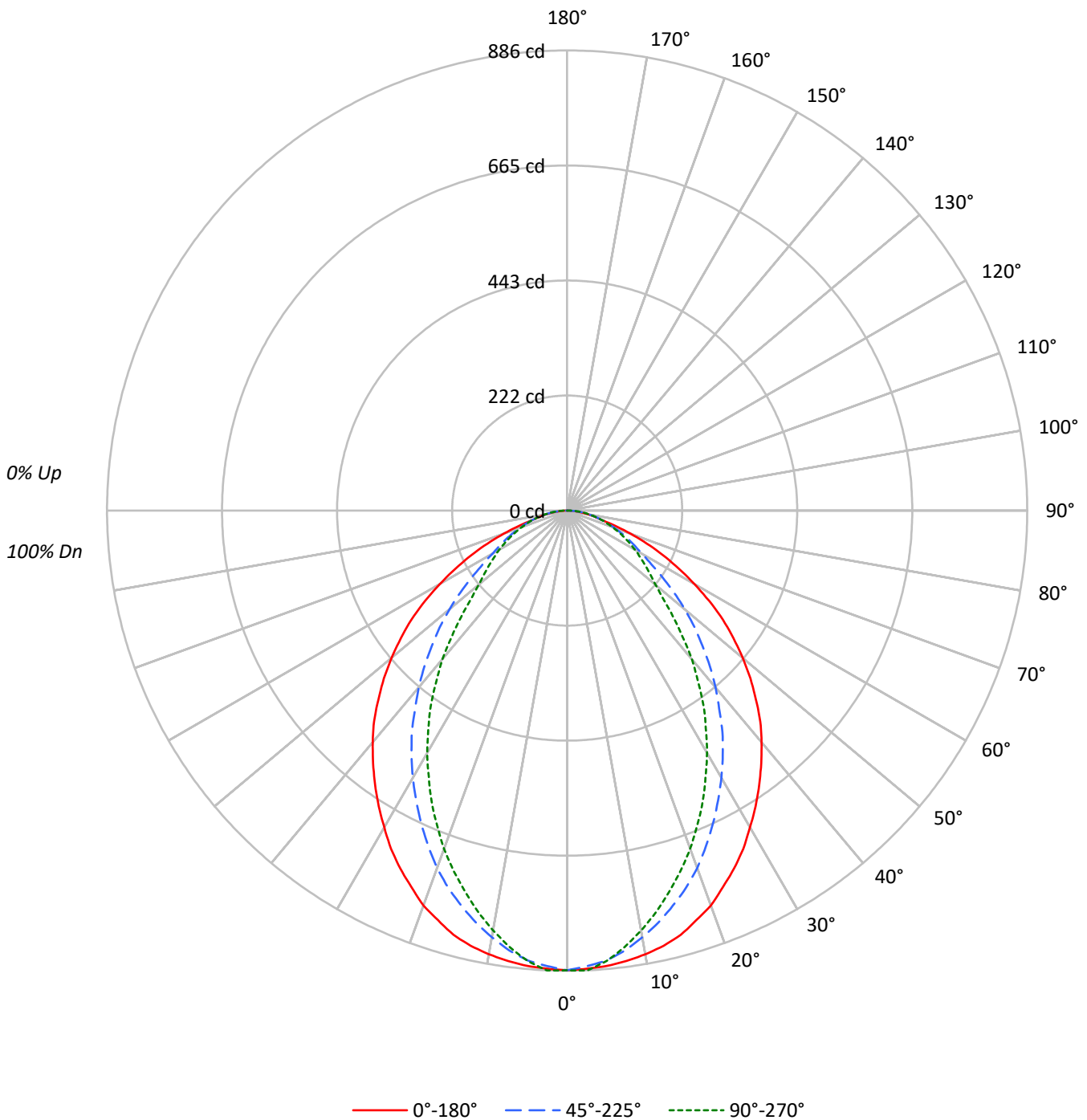
Lumens per Lamp: N/A  
Luminaire Lumens: 1706.9 lumens  
Efficiency: N/A  
Efficacy: 48.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	7623	7623	7623
5°	7607	7517	7526
10°	7585	7295	7176
15°	7539	7020	6770
20°	7416	6711	6349
25°	7225	6316	5871
30°	7002	5906	5357
35°	6779	5479	4811
40°	6548	4993	4197
45°	6258	4484	3508
50°	5909	3957	2969
55°	5498	3357	2749
60°	4872	2849	2597
65°	4155	2628	2459
70°	3248	2435	2331
75°	2216	2249	2249
80°	1909	2113	2167
85°	1640	2055	2263

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6258 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.4	4.8
10°-20°	223.7	13.1
20°-30°	310.5	18.2
30°-40°	332.9	19.5
40°-50°	294.9	17.3
50°-60°	222.2	13.0
60°-70°	143.9	8.4
70°-80°	73.8	4.3
80°-90°	22.7	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°	616.5	36.1
0°-40°	949.4	55.6
0°-60°	1466.5	85.9
0°-90°	1706.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1706.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	885	885	885	885	885	
5°	880	881	870	871	871	84
15°	846	827	787	768	759	238
25°	760	720	665	629	618	350
35°	645	587	521	474	458	403
45°	514	447	368	311	288	396
55°	366	305	224	188	183	325
65°	204	164	129	122	121	202
75°	67	70	68	68	68	79
85°	17	18	21	23	23	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	885.2	885.2	885.2	885.2	885.2
2.5°	883.1	886.3	877.9	884.2	886.3
5°	880.0	881.1	869.6	870.7	870.7
7.5°	874.8	872.7	854.0	848.8	847.8
10°	867.5	861.3	834.3	823.9	820.7
12.5°	858.2	846.7	812.4	797.9	791.6
15°	845.7	827.0	787.4	767.7	759.4
17.5°	827.0	803.1	761.4	736.5	727.1
20°	809.3	777.0	732.3	701.1	692.8
22.5°	784.3	750.0	699.0	665.7	655.3
25°	760.4	719.8	664.7	629.3	617.9
27.5°	734.4	688.6	629.3	591.9	577.3
30°	704.2	655.3	594.0	554.4	538.8
32.5°	675.1	623.1	557.6	513.9	497.2
35°	644.9	586.7	521.2	474.3	457.7
37.5°	613.7	552.4	480.6	434.8	413.0
40°	582.5	518.0	444.2	392.2	373.4
42.5°	550.3	482.7	406.7	352.6	328.7
45°	513.9	447.3	368.2	311.0	288.1
47.5°	478.5	413.0	332.9	270.5	249.7
50°	441.1	376.6	295.4	235.1	221.6
52.5°	403.6	339.1	259.0	208.0	201.8
55°	366.2	304.8	223.6	188.3	183.1
57.5°	324.5	269.4	192.4	170.6	166.4
60°	282.9	230.9	165.4	154.0	150.8
62.5°	242.4	197.6	146.7	137.3	135.2
65°	203.9	164.4	129.0	121.7	120.7
67.5°	166.4	135.2	112.3	108.2	106.1
70°	129.0	108.2	96.7	94.7	92.6
72.5°	95.7	87.4	82.2	81.1	80.1
75°	66.6	69.7	67.6	67.6	67.6
77.5°	53.1	54.1	55.1	56.2	55.1
80°	38.5	41.6	42.6	44.7	43.7
82.5°	27.0	29.1	32.2	33.3	34.3
85°	16.6	17.7	20.8	22.9	22.9
87.5°	7.3	8.3	10.4	12.5	13.5
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	17.50	18.99	17.86	19.31	19.62	14.06	15.56	14.43	15.87	16.19
	3H	18.70	20.04	19.08	20.37	20.73	15.76	17.10	16.13	17.43	17.79
	4H	19.01	20.27	19.41	20.62	20.99	16.43	17.69	16.83	18.04	18.42
	6H	19.21	20.37	19.62	20.74	21.13	16.98	18.15	17.39	18.51	18.90
	8H	19.27	20.38	19.69	20.76	21.17	17.20	18.31	17.63	18.70	19.10
	12H	19.30	20.36	19.73	20.74	21.17	17.37	18.43	17.80	18.81	19.24
4H	2H	17.64	18.90	18.04	19.25	19.62	14.72	15.98	15.12	16.33	16.71
	3H	19.04	20.08	19.45	20.48	20.89	16.63	17.68	17.04	18.08	18.48
	4H	19.47	20.41	19.90	20.82	21.26	17.43	18.37	17.87	18.79	19.23
	6H	19.79	20.61	20.25	21.05	21.51	18.12	18.94	18.58	19.38	19.84
	8H	19.89	20.65	20.35	21.10	21.56	18.39	19.16	18.86	19.60	20.07
	12H	19.96	20.64	20.44	21.12	21.59	18.62	19.31	19.11	19.79	20.26
8H	4H	19.59	20.36	20.06	20.80	21.27	17.75	18.51	18.21	18.96	19.43
	6H	20.01	20.65	20.51	21.14	21.62	18.58	19.21	19.07	19.70	20.18
	8H	20.17	20.74	20.69	21.25	21.74	18.94	19.51	19.46	20.02	20.51
	12H	20.30	20.80	20.81	21.29	21.86	19.28	19.78	19.79	20.27	20.84
12H	4H	19.60	20.28	20.08	20.76	21.23	17.78	18.46	18.26	18.94	19.41
	6H	20.04	20.61	20.55	21.12	21.61	18.64	19.21	19.15	19.72	20.20
	8H	20.25	20.75	20.76	21.24	21.81	19.07	19.57	19.58	20.06	20.63