

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: P1060266

Luminaire Tested: S124RDRP-S1020D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060266  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1020D930-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

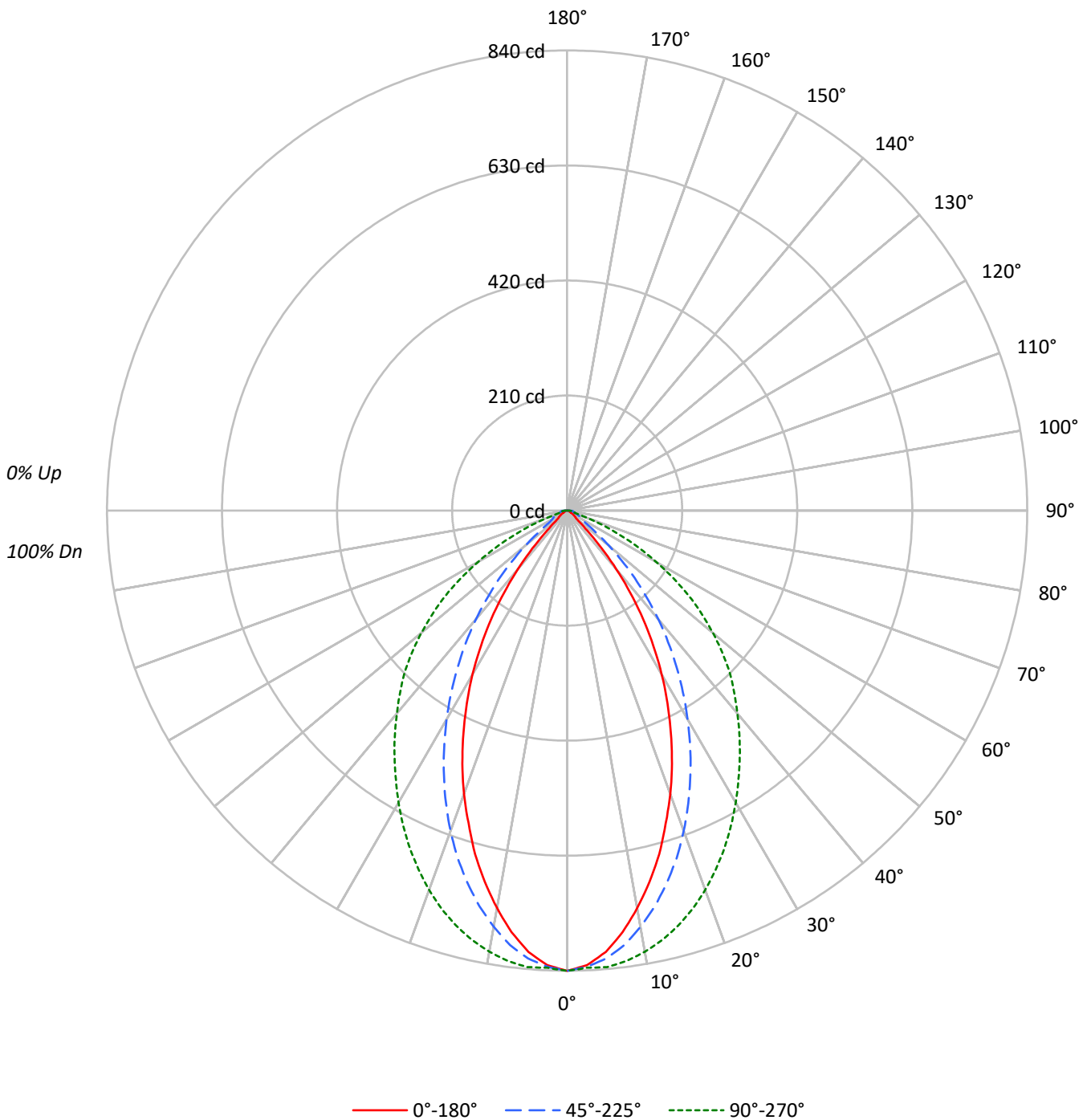
Lumens per Lamp: N/A  
Luminaire Lumens: 1059.0 lumens  
Efficiency: N/A  
Efficacy: 30.3 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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	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					100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72					72			
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65					65			
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59					59			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54					54			
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49					49			
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45					45			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39					39			

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

	0°	45°	90°
0°	7236	7236	7236
5°	6991	7093	7230
10°	6443	6744	7149
15°	5786	6269	6990
20°	5044	5704	6752
25°	4255	5060	6457
30°	3432	4374	6119
35°	2540	3660	5775
40°	1575	2916	5433
45°	625	2126	5117
50°	277	1334	4651
55°	222	697	4072
60°	153	527	3245
65°	100	522	2231
70°	98	471	1042
75°	130	459	459
80°	193	536	536
85°	385	1067	781

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5117 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.1	7.3
10°-20°	198.9	18.8
20°-30°	251.1	23.7
30°-40°	230.4	21.8
40°-50°	156.9	14.8
50°-60°	85.5	8.1
60°-70°	37.0	3.5
70°-80°	13.5	1.3
80°-90°	8.7	0.8
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°	527.2	49.8
0°-40°	757.5	71.5
0°-60°	999.9	94.4
0°-90°	1059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1059.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	809	820	821	830	836	75
15°	649	672	703	754	784	181
25°	448	479	533	617	680	205
35°	242	277	348	459	549	149
45°	51	86	175	310	420	48
55°	15	16	46	171	271	13
65°	5	7	26	53	110	6
75°	4	13	14	14	14	4
85°	4	9	11	11	8	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	840.3	840.3	840.3	840.3	840.3
2.5°	830.5	840.3	833.4	835.4	835.4
5°	808.8	819.6	820.6	829.5	836.4
7.5°	776.2	792.0	799.9	817.6	829.5
10°	736.8	755.5	771.3	801.9	817.6
12.5°	694.4	716.1	739.7	780.2	802.8
15°	649.0	671.7	703.2	753.5	784.1
17.5°	598.7	626.3	664.8	724.9	762.4
20°	550.4	578.0	622.4	690.4	736.8
22.5°	500.1	528.7	578.0	653.9	709.1
25°	447.8	479.3	532.6	617.4	679.6
27.5°	396.5	430.0	486.2	579.0	648.0
30°	345.2	378.7	439.9	539.5	615.4
32.5°	292.9	327.4	393.5	498.1	581.9
35°	241.6	277.1	348.2	458.6	549.4
37.5°	189.4	226.8	302.8	420.2	516.8
40°	140.1	177.5	259.4	381.7	483.3
42.5°	93.7	131.2	215.0	344.2	451.7
45°	51.3	85.8	174.6	309.7	420.2
47.5°	27.6	47.3	135.1	276.2	384.7
50°	20.7	25.6	99.6	240.7	347.2
52.5°	17.8	19.7	69.0	203.2	309.7
55°	14.8	15.8	46.4	170.6	271.2
57.5°	11.8	12.8	34.5	138.1	229.8
60°	8.9	10.8	30.6	106.5	188.4
62.5°	6.9	8.9	28.6	77.9	148.9
65°	4.9	6.9	25.6	53.3	109.5
67.5°	4.9	7.9	21.7	34.5	74.0
70°	3.9	10.8	18.7	22.7	41.4
72.5°	3.9	11.8	15.8	15.8	15.8
75°	3.9	12.8	13.8	13.8	13.8
77.5°	3.9	11.8	12.8	11.8	11.8
80°	3.9	10.8	10.8	10.8	10.8
82.5°	3.9	9.9	10.8	10.8	8.9
85°	3.9	8.9	10.8	10.8	7.9
87.5°	3.0	8.9	9.9	9.9	5.9
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	0.00	0.00	0.00	0.00	0.00	15.29	16.56	15.65	16.88	17.19
	3H	0.00	0.45	0.00	0.78	1.15	15.66	16.79	16.04	17.12	17.49
	4H	0.54	1.59	0.94	1.94	2.32	15.64	16.69	16.04	17.04	17.43
	6H	1.71	2.67	2.12	3.05	3.44	15.63	16.59	16.04	16.96	17.36
	8H	2.30	3.21	2.73	3.60	4.01	15.63	16.54	16.06	16.93	17.34
	12H	2.96	3.84	3.40	4.22	4.65	15.64	16.51	16.07	16.90	17.33
4H	2H	1.52	2.57	1.92	2.92	3.31	15.10	16.15	15.50	16.50	16.88
	3H	3.10	3.96	3.51	4.36	4.77	15.52	16.37	15.93	16.78	17.18
	4H	4.39	5.16	4.83	5.58	6.02	15.51	16.28	15.95	16.70	17.15
	6H	5.51	6.17	5.98	6.62	7.09	15.55	16.22	16.02	16.66	17.13
	8H	6.02	6.64	6.49	7.09	7.56	15.58	16.20	16.05	16.65	17.12
	12H	6.57	7.12	7.06	7.60	8.08	15.65	16.19	16.13	16.67	17.15
8H	4H	5.48	6.10	5.95	6.54	7.02	15.42	16.04	15.89	16.49	16.96
	6H	7.02	7.52	7.52	8.02	8.50	15.50	16.01	16.00	16.50	16.99
	8H	7.83	8.28	8.35	8.80	9.29	15.58	16.04	16.11	16.55	17.05
	12H	8.66	9.06	9.18	9.56	10.13	15.75	16.15	16.27	16.65	17.22
12H	4H	5.67	6.21	6.15	6.70	7.17	15.39	15.93	15.87	16.42	16.89
	6H	7.37	7.83	7.89	8.34	8.83	15.47	15.93	16.00	16.44	16.94
	8H	8.39	8.79	8.90	9.28	9.86	15.61	16.01	16.13	16.51	17.08