

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



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: P1060915

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060915  
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-H575D930-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

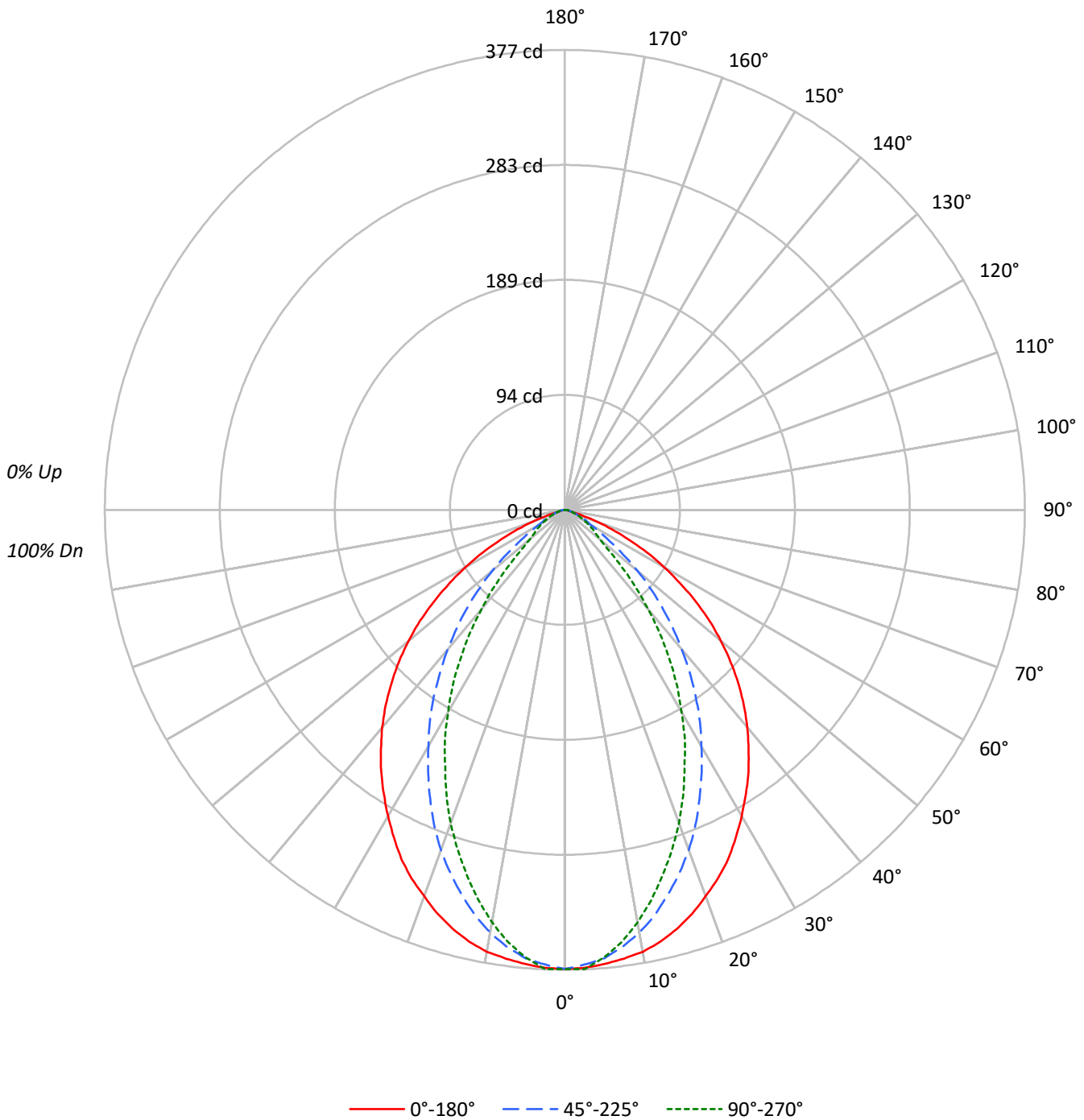
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 554.8 lumens  
Efficiency: N/A  
Efficacy: 31.9 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): 17.4  
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	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	64	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°	3240	3240	3240
5°	3229	3189	3184
10°	3216	3077	3003
15°	3170	2911	2764
20°	3089	2720	2506
25°	3006	2483	2205
30°	2883	2224	1902
35°	2757	1967	1572
40°	2616	1674	1192
45°	2447	1369	800
50°	2236	1037	497
55°	1965	685	422
60°	1624	420	346
65°	1178	324	281
70°	640	239	214
75°	140	176	193
80°	104	129	159
85°	109	109	158

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2447 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.9	6.3
10°-20°	92.6	16.7
20°-30°	122.7	22.1
30°-40°	121.7	21.9
40°-50°	93.7	16.9
50°-60°	55.8	10.1
60°-70°	25.4	4.6
70°-80°	6.6	1.2
80°-90°	1.5	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°	250.1	45.1
0°-40°	371.9	67.0
0°-60°	521.4	94.0
0°-90°	554.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	554.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	376	376	376	376	376	
5°	374	374	369	369	368	35
15°	356	347	326	315	310	100
25°	316	294	261	240	232	145
35°	262	230	187	158	150	164
45°	201	162	112	78	66	155
55°	131	93	46	29	28	117
65°	58	34	16	14	14	58
75°	4	5	5	6	6	9
85°	1	1	1	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	376.3	376.3	376.3	376.3	376.3
2.5°	375.8	376.3	373.1	375.8	376.8
5°	373.6	374.2	368.9	368.9	368.3
7.5°	371.0	369.9	361.5	358.3	357.2
10°	367.8	364.1	351.9	345.6	343.4
12.5°	362.5	356.7	340.3	331.2	327.5
15°	355.6	346.6	326.5	315.3	310.0
17.5°	347.1	336.0	312.2	297.9	292.0
20°	337.1	322.2	296.8	278.8	273.5
22.5°	327.5	309.0	279.8	259.2	253.3
25°	316.4	293.6	261.3	239.6	232.1
27.5°	303.2	278.8	242.7	220.5	213.1
30°	289.9	262.9	223.7	200.3	191.3
32.5°	276.1	246.4	206.2	179.7	171.2
35°	262.3	229.5	187.1	158.5	149.5
37.5°	247.5	212.5	168.0	138.3	128.3
40°	232.7	196.1	148.9	118.7	106.0
42.5°	217.3	179.1	130.4	98.6	85.9
45°	200.9	161.6	112.4	78.4	65.7
47.5°	184.4	145.2	94.3	58.8	47.2
50°	166.9	127.7	77.4	42.9	37.1
52.5°	149.5	110.8	60.4	33.4	31.8
55°	130.9	93.3	45.6	28.6	28.1
57.5°	111.8	77.4	32.9	24.9	23.8
60°	94.3	62.5	24.4	21.2	20.1
62.5°	76.3	47.2	20.1	17.5	16.4
65°	57.8	34.4	15.9	13.8	13.8
67.5°	41.9	23.3	12.7	11.1	10.6
70°	25.4	14.3	9.5	9.0	8.5
72.5°	12.7	8.5	7.4	6.9	6.9
75°	4.2	5.3	5.3	5.8	5.8
77.5°	3.2	3.7	3.7	4.2	4.2
80°	2.1	2.6	2.6	3.2	3.2
82.5°	1.6	1.6	2.1	2.1	2.6
85°	1.1	1.1	1.1	1.6	1.6
87.5°	0.5	0.5	0.5	1.1	1.1
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	13.20	14.54	13.57	14.85	15.17	4.75	6.08	5.11	6.40	6.71
	3H	13.71	14.89	14.09	15.22	15.59	5.57	6.75	5.95	7.08	7.44
	4H	13.68	14.78	14.08	15.13	15.51	5.85	6.94	6.25	7.30	7.68
	6H	13.61	14.62	14.03	14.99	15.39	6.02	7.02	6.43	7.39	7.79
	8H	13.58	14.53	14.01	14.92	15.33	6.08	7.03	6.51	7.42	7.83
	12H	13.54	14.45	13.97	14.83	15.26	6.12	7.04	6.56	7.42	7.85
4H	2H	13.05	14.14	13.45	14.50	14.88	5.19	6.29	5.59	6.64	7.02
	3H	13.60	14.49	14.01	14.90	15.30	6.15	7.05	6.57	7.45	7.85
	4H	13.57	14.36	14.00	14.78	15.23	6.52	7.31	6.95	7.73	8.17
	6H	13.52	14.20	13.98	14.65	15.11	6.77	7.45	7.23	7.90	8.36
	8H	13.47	14.11	13.94	14.56	15.03	6.85	7.49	7.32	7.94	8.41
	12H	13.43	14.00	13.92	14.48	14.95	6.93	7.49	7.41	7.97	8.45
8H	4H	13.46	14.10	13.93	14.54	15.02	6.60	7.24	7.07	7.69	8.16
	6H	13.40	13.92	13.90	14.41	14.90	6.91	7.43	7.42	7.93	8.41
	8H	13.35	13.82	13.87	14.33	14.82	7.04	7.51	7.56	8.02	8.52
	12H	13.32	13.73	13.83	14.23	14.80	7.18	7.59	7.69	8.09	8.66
12H	4H	13.42	13.98	13.90	14.46	14.94	6.58	7.14	7.06	7.62	8.10
	6H	13.34	13.81	13.86	14.32	14.82	6.89	7.36	7.41	7.88	8.37
	8H	13.31	13.73	13.83	14.22	14.79	7.06	7.47	7.57	7.97	8.54