

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: P1060876

Luminaire Tested: S124RDRP-H575D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060876  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H575D835-X4F0-XX-UDD-BVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

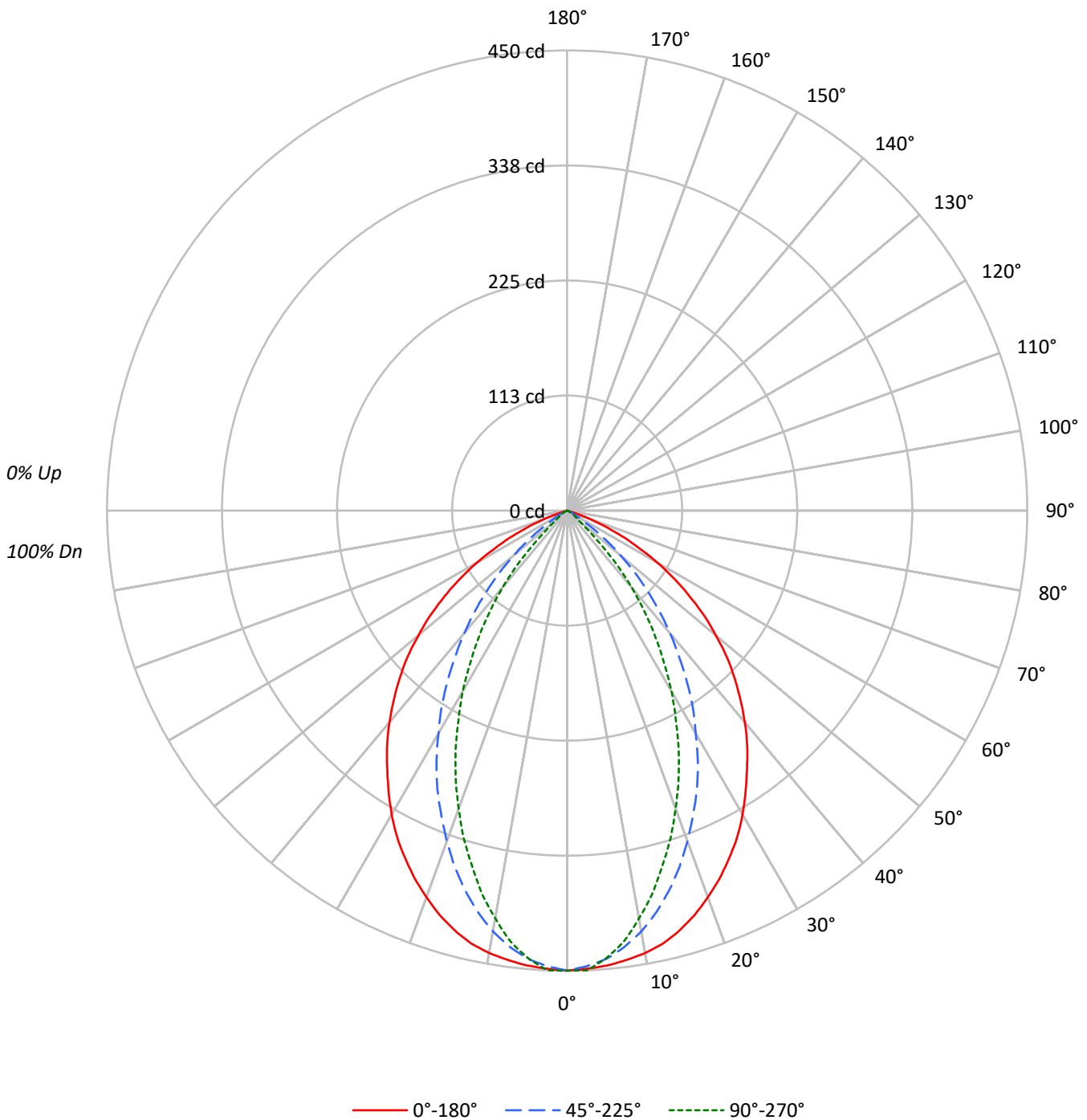
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 587.5 lumens  
Efficiency: N/A  
Efficacy: 33.8 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98  
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 (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	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82					82			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66					66			
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42					42			
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39					39			

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

	0°	45°	90°
0°	3874	3874	3874
5°	3860	3804	3798
10°	3842	3655	3541
15°	3790	3430	3205
20°	3688	3151	2842
25°	3564	2853	2452
30°	3413	2502	2029
35°	3225	2146	1579
40°	3040	1761	1104
45°	2818	1354	547
50°	2543	915	184
55°	2196	468	128
60°	1758	169	90
65°	1206	94	41
70°	541	50	33
75°	0	23	23
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2818 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.5	7.1
10°-20°	108.9	18.5
20°-30°	141.0	24.0
30°-40°	133.9	22.8
40°-50°	94.9	16.1
50°-60°	48.7	8.3
60°-70°	17.1	2.9
70°-80°	1.5	0.3
80°-90°	0.0	0.0
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°	291.4	49.6
0°-40°	425.3	72.4
0°-60°	568.9	96.8
0°-90°	587.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	587.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	447	447	440	440	439	42
15°	425	412	385	367	360	120
25°	375	346	300	268	258	172
35°	307	262	204	164	150	192
45°	231	178	111	64	45	178
55°	146	96	31	9	8	131
65°	59	29	5	3	2	59
75°	0	1	1	1	1	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	449.9	449.9	449.9	449.9	449.9
2.5°	448.5	449.9	445.9	449.2	449.9
5°	446.6	447.2	440.1	440.1	439.4
7.5°	443.3	442.0	430.3	425.8	425.1
10°	439.4	434.9	418.0	408.2	405.0
12.5°	433.6	425.1	402.4	388.1	384.2
15°	425.1	412.1	384.8	366.6	359.5
17.5°	414.7	397.8	365.3	343.2	336.1
20°	402.4	380.9	343.9	319.2	310.1
22.5°	389.4	364.7	321.8	293.8	284.7
25°	375.1	345.8	300.3	268.5	258.1
27.5°	360.1	325.7	276.9	243.8	230.1
30°	343.2	305.5	251.6	217.1	204.1
32.5°	325.0	283.4	228.8	191.8	176.2
35°	306.8	262.0	204.1	164.5	150.2
37.5°	289.3	241.8	179.4	137.8	124.2
40°	270.4	219.7	156.7	113.8	98.2
42.5°	250.9	198.3	133.3	89.1	72.2
45°	231.4	178.1	111.2	63.7	44.9
47.5°	211.9	156.7	89.7	40.3	24.1
50°	189.8	135.9	68.3	21.5	13.7
52.5°	169.0	116.4	48.8	12.4	10.4
55°	146.3	96.2	31.2	9.1	8.5
57.5°	124.8	76.7	17.6	7.2	6.5
60°	102.1	59.2	9.8	5.9	5.2
62.5°	79.3	42.9	6.5	3.9	3.3
65°	59.2	28.6	4.6	2.6	2.0
67.5°	39.0	16.3	3.3	1.3	1.3
70°	21.5	7.8	2.0	1.3	1.3
72.5°	7.8	2.6	1.3	0.7	0.7
75°	0.0	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.7
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	13.23	14.49	13.60	14.80	15.12	0.00	0.00	0.00	0.00	0.00
	3H	13.51	14.62	13.89	14.95	15.31	0.00	0.00	0.00	0.00	0.00
	4H	13.43	14.46	13.84	14.81	15.20	0.00	0.00	0.00	0.00	0.00
	6H	13.35	14.29	13.76	14.66	15.05	0.00	0.00	0.00	0.00	0.00
	8H	13.30	14.19	13.73	14.58	14.99	0.00	0.00	0.00	0.00	0.00
	12H	13.26	14.10	13.69	14.49	14.92	0.00	0.00	0.00	0.00	0.00
4H	2H	13.01	14.03	13.41	14.38	14.77	0.00	0.00	0.00	0.00	0.00
	3H	13.29	14.12	13.70	14.52	14.93	0.00	0.00	0.00	0.00	0.00
	4H	13.20	13.93	13.63	14.35	14.80	0.00	0.00	0.00	0.00	0.00
	6H	13.11	13.74	13.58	14.19	14.66	0.00	0.00	0.00	0.00	0.00
	8H	13.05	13.64	13.52	14.09	14.56	0.00	0.00	0.00	0.00	0.00
	12H	13.00	13.51	13.49	14.00	14.47	0.00	0.00	0.00	0.00	0.00
8H	4H	13.05	13.64	13.52	14.09	14.56	0.00	0.00	0.00	0.00	0.00
	6H	12.94	13.42	13.45	13.92	14.40	0.00	0.00	0.00	0.00	0.00
	8H	12.87	13.30	13.40	13.82	14.31	0.00	0.00	0.00	0.00	0.00
	12H	12.82	13.20	13.34	13.70	14.27	0.00	0.00	0.00	0.00	0.00
12H	4H	13.00	13.51	13.49	14.00	14.47	0.00	0.00	0.00	0.00	0.00
	6H	12.87	13.30	13.40	13.82	14.31	0.00	0.00	0.00	0.00	0.00
	8H	12.82	13.20	13.34	13.70	14.27	0.00	0.00	0.00	0.00	0.00