

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: P1060990

Luminaire Tested: S124RDR-H795D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060990  
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: S124RDR-H795D927-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

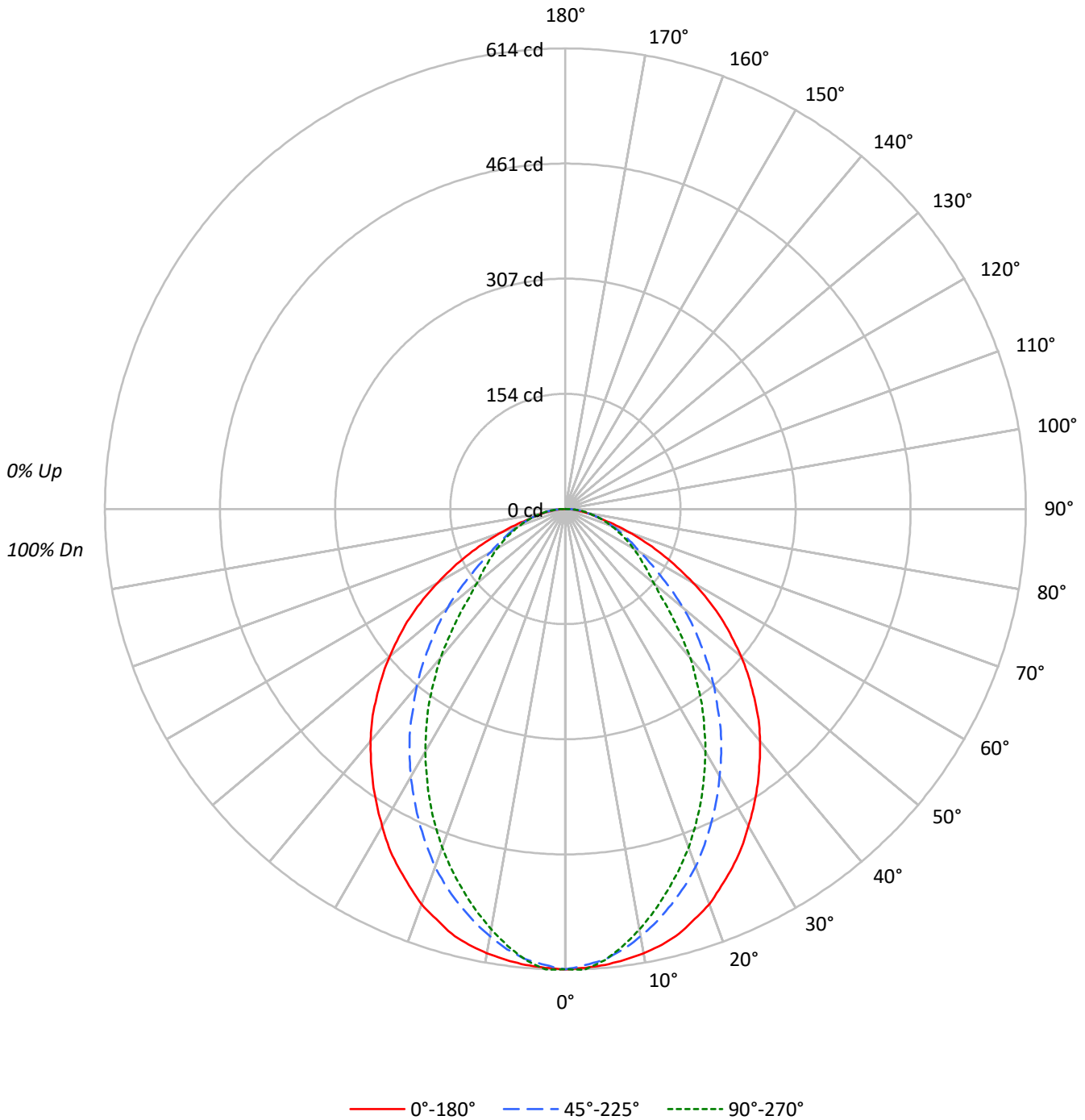
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1183.5 lumens  
Efficiency: N/A  
Efficacy: 50.4 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): 23.5  
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	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°	5286	5286	5286
5°	5274	5211	5218
10°	5259	5058	4975
15°	5227	4868	4694
20°	5142	4652	4401
25°	5009	4379	4070
30°	4855	4095	3715
35°	4701	3798	3336
40°	4540	3462	2910
45°	4339	3109	2433
50°	4097	2744	2058
55°	3812	2329	1905
60°	3379	1975	1801
65°	2881	1822	1705
70°	2251	1689	1616
75°	1537	1560	1560
80°	1324	1468	1503
85°	1136	1423	1571

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4339 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.1	4.8
10°-20°	155.1	13.1
20°-30°	215.3	18.2
30°-40°	230.8	19.5
40°-50°	204.4	17.3
50°-60°	154.1	13.0
60°-70°	99.8	8.4
70°-80°	51.2	4.3
80°-90°	15.7	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°	427.5	36.1
0°-40°	658.3	55.6
0°-60°	1016.8	85.9
0°-90°	1183.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1183.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	610	611	603	604	604	58
15°	586	573	546	532	526	165
25°	527	499	461	436	428	243
35°	447	407	361	329	317	280
45°	356	310	255	216	200	275
55°	254	211	155	130	127	226
65°	141	114	89	84	84	140
75°	46	48	47	47	47	55
85°	12	12	14	16	16	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	613.8	613.8	613.8	613.8	613.8
2.5°	612.3	614.5	608.7	613.0	614.5
5°	610.1	610.9	602.9	603.7	603.7
7.5°	606.5	605.1	592.1	588.5	587.8
10°	601.5	597.2	578.4	571.2	569.0
12.5°	595.0	587.1	563.3	553.2	548.8
15°	586.3	573.4	546.0	532.3	526.5
17.5°	573.4	556.8	527.9	510.6	504.1
20°	561.1	538.7	507.7	486.1	480.3
22.5°	543.8	520.0	484.7	461.6	454.4
25°	527.2	499.1	460.9	436.3	428.4
27.5°	509.2	477.4	436.3	410.4	400.3
30°	488.3	454.4	411.8	384.4	373.6
32.5°	468.1	432.0	386.6	356.3	344.7
35°	447.2	406.8	361.3	328.9	317.3
37.5°	425.5	383.0	333.2	301.5	286.3
40°	403.9	359.2	308.0	271.9	258.9
42.5°	381.5	334.6	282.0	244.5	227.9
45°	356.3	310.1	255.3	215.6	199.8
47.5°	331.8	286.3	230.8	187.5	173.1
50°	305.8	261.1	204.8	163.0	153.6
52.5°	279.8	235.1	179.6	144.2	139.9
55°	253.9	211.3	155.1	130.5	126.9
57.5°	225.0	186.8	133.4	118.3	115.4
60°	196.2	160.1	114.7	106.7	104.6
62.5°	168.0	137.0	101.7	95.2	93.8
65°	141.4	114.0	89.4	84.4	83.7
67.5°	115.4	93.8	77.9	75.0	73.6
70°	89.4	75.0	67.1	65.6	64.2
72.5°	66.4	60.6	57.0	56.3	55.5
75°	46.2	48.3	46.9	46.9	46.9
77.5°	36.8	37.5	38.2	38.9	38.2
80°	26.7	28.8	29.6	31.0	30.3
82.5°	18.8	20.2	22.4	23.1	23.8
85°	11.5	12.3	14.4	15.9	15.9
87.5°	5.0	5.8	7.2	8.7	9.4
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	16.22	17.72	16.59	18.04	18.35	12.79	14.29	13.15	14.60	14.92
	3H	17.43	18.77	17.81	19.10	19.46	14.48	15.83	14.86	16.16	16.52
	4H	17.74	18.99	18.14	19.34	19.72	15.16	16.42	15.56	16.77	17.15
	6H	17.94	19.10	18.35	19.47	19.86	15.71	16.87	16.12	17.24	17.63
	8H	18.00	19.10	18.42	19.49	19.89	15.93	17.04	16.35	17.42	17.83
	12H	18.03	19.09	18.46	19.47	19.90	16.10	17.16	16.53	17.54	17.97
4H	2H	16.36	17.62	16.76	17.97	18.35	13.45	14.71	13.85	15.06	15.44
	3H	17.77	18.81	18.18	19.21	19.61	15.36	16.40	15.77	16.80	17.20
	4H	18.19	19.13	18.63	19.55	19.99	16.16	17.10	16.59	17.52	17.96
	6H	18.52	19.34	18.98	19.78	20.24	16.85	17.67	17.31	18.11	18.57
	8H	18.62	19.38	19.08	19.83	20.29	17.12	17.89	17.59	18.33	18.80
	12H	18.69	19.37	19.17	19.85	20.32	17.35	18.03	17.83	18.51	18.98
8H	4H	18.32	19.09	18.78	19.53	20.00	16.48	17.24	16.94	17.69	18.15
	6H	18.74	19.37	19.24	19.87	20.34	17.31	17.94	17.80	18.43	18.91
	8H	18.90	19.47	19.41	19.98	20.47	17.67	18.24	18.19	18.75	19.24
	12H	19.03	19.53	19.54	20.02	20.59	18.01	18.51	18.52	19.00	19.57
12H	4H	18.33	19.01	18.81	19.49	19.96	16.51	17.19	16.99	17.67	18.14
	6H	18.77	19.34	19.28	19.85	20.33	17.37	17.93	17.88	18.44	18.93
	8H	18.98	19.48	19.49	19.97	20.54	17.80	18.30	18.31	18.79	19.36