

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: P1061010

Luminaire Tested: S124RDR-H795D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061010  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D935-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

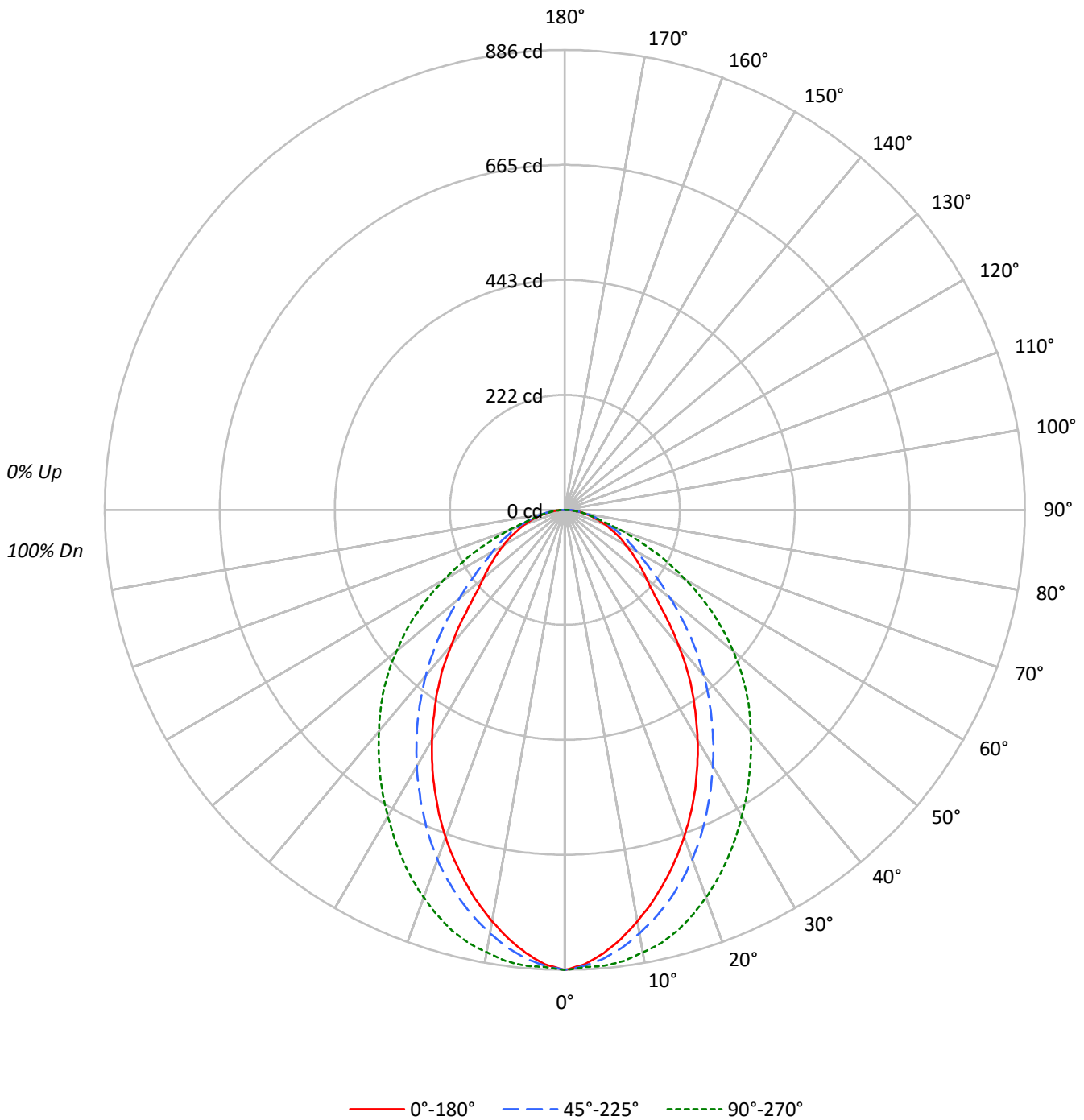
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1626.4 lumens  
Efficiency: N/A  
Efficacy: 69.2 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
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	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				

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

	0°	45°	90°
0°	7633	7633	7633
5°	7411	7500	7621
10°	7037	7243	7572
15°	6615	6937	7482
20°	6153	6570	7282
25°	5642	6134	7043
30°	5085	5671	6777
35°	4502	5187	6523
40°	3826	4682	6260
45°	3133	4136	6018
50°	2742	3551	5664
55°	2521	3061	5241
60°	2337	2756	4621
65°	2190	2590	3867
70°	2054	2369	2903
75°	1930	2166	2113
80°	1790	1984	1790
85°	1630	1937	1551

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6018 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.9	5.0
10°-20°	220.4	13.6
20°-30°	301.3	18.5
30°-40°	316.6	19.5
40°-50°	274.8	16.9
50°-60°	207.3	12.7
60°-70°	134.3	8.3
70°-80°	69.0	4.2
80°-90°	20.9	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°	603.6	37.1
0°-40°	920.2	56.6
0°-60°	1402.3	86.2
0°-90°	1626.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1626.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	857	869	868	875	882	80
15°	742	760	778	813	839	208
25°	594	615	646	695	741	272
35°	428	452	493	559	620	266
45°	257	282	340	424	494	203
55°	168	173	204	289	349	151
65°	108	110	127	154	190	107
75°	58	65	65	66	64	62
85°	16	20	20	19	16	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	886.4	886.4	886.4	886.4	886.4
2.5°	876.2	887.2	879.3	880.9	881.7
5°	857.4	869.1	867.6	874.6	881.7
7.5°	833.0	847.2	850.3	864.4	876.2
10°	804.8	820.5	828.3	851.1	866.0
12.5°	775.0	790.7	804.8	833.8	855.0
15°	742.0	760.1	778.1	813.4	839.3
17.5°	707.5	726.4	749.1	787.5	818.1
20°	671.4	690.3	716.9	758.5	794.6
22.5°	633.0	654.2	682.4	727.1	769.5
25°	593.8	615.0	645.6	695.0	741.3
27.5°	553.0	575.0	607.9	662.8	712.2
30°	511.4	535.0	570.3	628.3	681.6
32.5°	469.1	494.2	531.8	593.8	651.8
35°	428.3	451.8	493.4	559.3	620.5
37.5°	385.9	409.5	454.2	525.6	589.1
40°	340.4	366.3	416.5	490.3	556.9
42.5°	298.1	324.0	378.1	456.5	526.3
45°	257.3	281.6	339.6	424.4	494.2
47.5°	225.9	243.2	301.2	393.0	459.7
50°	204.7	212.6	265.1	358.5	422.8
52.5°	185.9	192.2	232.2	324.0	386.7
55°	167.9	172.6	203.9	289.4	349.1
57.5°	152.2	154.5	178.8	254.9	308.3
60°	135.7	138.8	160.0	219.6	268.3
62.5°	122.4	123.9	143.5	185.9	228.3
65°	107.5	109.8	127.1	153.7	189.8
67.5°	94.1	98.1	109.8	125.5	149.8
70°	81.6	87.1	94.1	102.0	115.3
72.5°	69.8	76.1	80.0	83.1	80.8
75°	58.0	65.1	65.1	65.9	63.5
77.5°	47.1	53.3	52.6	51.8	48.6
80°	36.1	41.6	40.0	39.2	36.1
82.5°	26.7	30.6	29.0	28.2	24.3
85°	16.5	20.4	19.6	18.8	15.7
87.5°	7.8	11.8	11.0	10.2	7.1
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	13.56	15.05	13.93	15.36	15.68	17.30	18.79	17.67	19.10	19.42
	3H	15.23	16.56	15.61	16.89	17.25	18.43	19.76	18.81	20.09	20.45
	4H	15.90	17.15	16.30	17.50	17.88	18.72	19.97	19.12	20.32	20.70
	6H	16.41	17.56	16.82	17.93	18.32	18.92	20.08	19.34	20.44	20.84
	8H	16.58	17.68	17.01	18.07	18.47	18.98	20.08	19.41	20.47	20.87
	12H	16.70	17.75	17.13	18.13	18.56	19.01	20.06	19.44	20.44	20.87
4H	2H	14.36	15.60	14.76	15.95	16.33	17.47	18.72	17.87	19.07	19.44
	3H	16.23	17.26	16.64	17.66	18.07	18.80	19.83	19.21	20.23	20.64
	4H	17.03	17.96	17.47	18.38	18.82	19.21	20.15	19.65	20.56	21.00
	6H	17.68	18.49	18.13	18.93	19.39	19.54	20.35	19.99	20.79	21.25
	8H	17.90	18.66	18.36	19.10	19.57	19.63	20.39	20.09	20.83	21.30
	12H	18.06	18.74	18.55	19.22	19.69	19.70	20.38	20.19	20.86	21.33
8H	4H	17.38	18.14	17.84	18.58	19.05	19.35	20.11	19.81	20.55	21.02
	6H	18.17	18.80	18.67	19.29	19.77	19.77	20.39	20.26	20.88	21.36
	8H	18.49	19.05	19.00	19.56	20.05	19.92	20.48	20.44	21.00	21.48
	12H	18.75	19.25	19.26	19.74	20.31	20.06	20.56	20.57	21.05	21.62
12H	4H	17.41	18.09	17.89	18.57	19.04	19.35	20.03	19.84	20.51	20.98
	6H	18.23	18.79	18.75	19.30	19.79	19.79	20.35	20.30	20.86	21.35
	8H	18.62	19.11	19.13	19.61	20.17	20.00	20.49	20.51	20.99	21.55