

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: P1060866

Luminaire Tested: S124RDR-H350D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060866  
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-H350D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

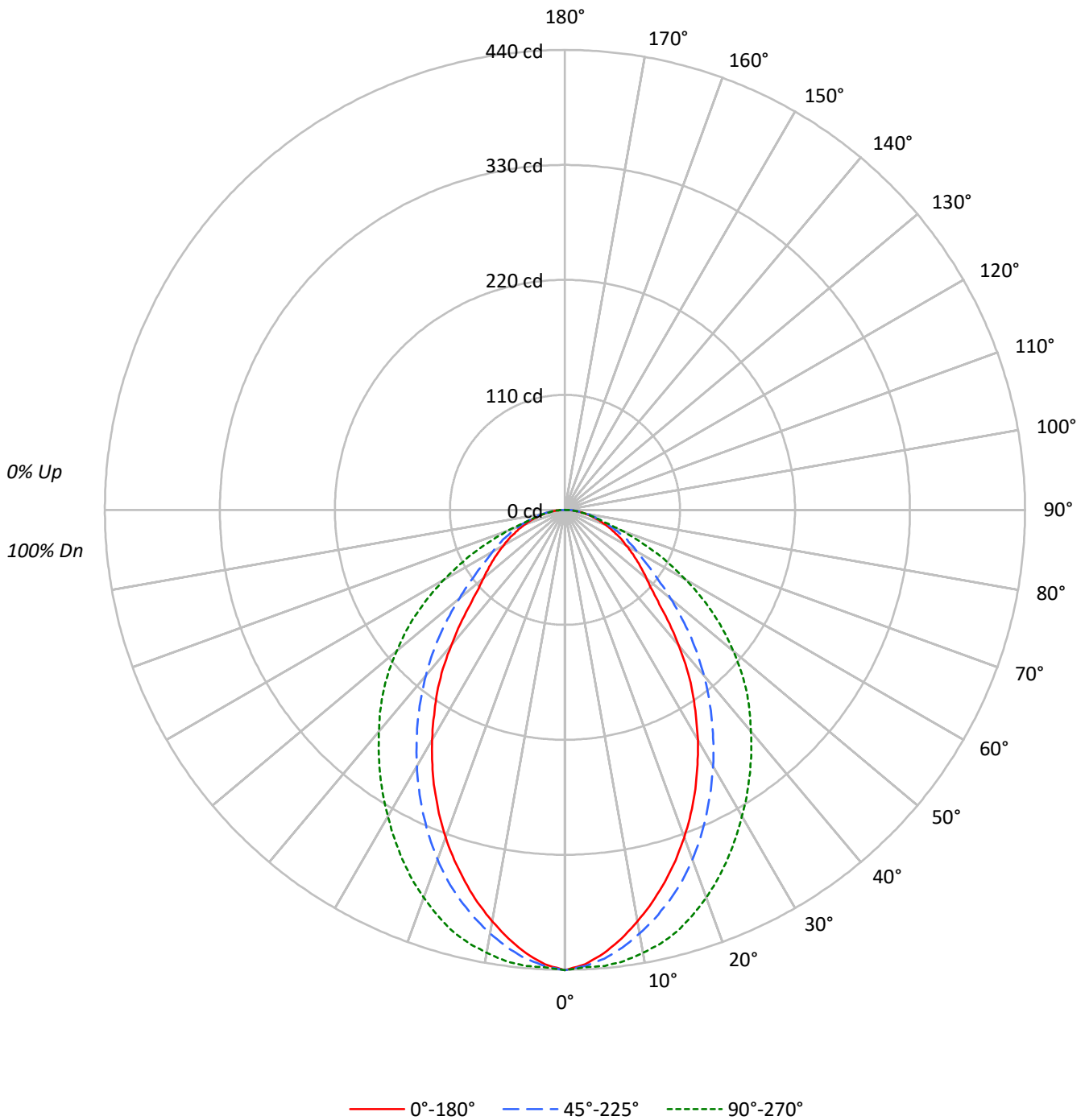
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 808.0 lumens  
Efficiency: N/A  
Efficacy: 69.1 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): 11.7  
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			100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65			65	
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57			57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50			50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45			45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40			40	
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37			37	
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33			33	
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31			31	

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

	0°	45°	90°
0°	3792	3792	3792
5°	3681	3726	3786
10°	3496	3598	3762
15°	3287	3447	3718
20°	3057	3264	3618
25°	2803	3047	3499
30°	2527	2817	3367
35°	2237	2577	3240
40°	1901	2326	3110
45°	1556	2054	2990
50°	1362	1764	2813
55°	1252	1521	2603
60°	1161	1369	2296
65°	1088	1286	1921
70°	1020	1178	1443
75°	958	1075	1051
80°	888	987	888
85°	810	958	771

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2990 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.7	5.0
10°-20°	109.5	13.6
20°-30°	149.7	18.5
30°-40°	157.3	19.5
40°-50°	136.5	16.9
50°-60°	103.0	12.7
60°-70°	66.8	8.3
70°-80°	34.3	4.2
80°-90°	10.4	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°	299.9	37.1
0°-40°	457.2	56.6
0°-60°	696.6	86.2
0°-90°	808.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	426	432	431	434	438	40
15°	369	378	387	404	417	103
25°	295	306	321	345	368	135
35°	213	224	245	278	308	132
45°	128	140	169	211	246	101
55°	83	86	101	144	173	75
65°	53	55	63	76	94	53
75°	29	32	32	33	32	31
85°	8	10	10	9	8	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	440.4	440.4	440.4	440.4	440.4
2.5°	435.3	440.7	436.8	437.6	438.0
5°	425.9	431.8	431.0	434.5	438.0
7.5°	413.9	420.9	422.4	429.4	435.3
10°	399.8	407.6	411.5	422.8	430.2
12.5°	385.0	392.8	399.8	414.2	424.8
15°	368.7	377.6	386.6	404.1	417.0
17.5°	351.5	360.9	372.2	391.3	406.5
20°	333.6	342.9	356.2	376.8	394.8
22.5°	314.5	325.0	339.0	361.2	382.3
25°	295.0	305.5	320.7	345.3	368.3
27.5°	274.7	285.6	302.0	329.3	353.8
30°	254.1	265.8	283.3	312.1	338.6
32.5°	233.0	245.5	264.2	295.0	323.8
35°	212.8	224.5	245.1	277.9	308.2
37.5°	191.7	203.4	225.6	261.1	292.7
40°	169.1	182.0	206.9	243.6	276.7
42.5°	148.1	160.9	187.8	226.8	261.5
45°	127.8	139.9	168.7	210.8	245.5
47.5°	112.2	120.8	149.6	195.2	228.4
50°	101.7	105.6	131.7	178.1	210.0
52.5°	92.4	95.5	115.4	160.9	192.1
55°	83.4	85.7	101.3	143.8	173.4
57.5°	75.6	76.8	88.9	126.7	153.2
60°	67.4	69.0	79.5	109.1	133.3
62.5°	60.8	61.6	71.3	92.4	113.4
65°	53.4	54.6	63.1	76.4	94.3
67.5°	46.8	48.7	54.6	62.4	74.4
70°	40.5	43.3	46.8	50.7	57.3
72.5°	34.7	37.8	39.7	41.3	40.1
75°	28.8	32.3	32.3	32.7	31.6
77.5°	23.4	26.5	26.1	25.7	24.2
80°	17.9	20.7	19.9	19.5	17.9
82.5°	13.2	15.2	14.4	14.0	12.1
85°	8.2	10.1	9.7	9.4	7.8
87.5°	3.9	5.8	5.5	5.1	3.5
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	11.14	12.62	11.50	12.94	13.25	14.87	16.36	15.24	16.67	16.99
	3H	12.80	14.14	13.18	14.46	14.83	16.00	17.33	16.38	17.66	18.02
	4H	13.47	14.72	13.87	15.07	15.45	16.30	17.54	16.70	17.89	18.27
	6H	13.98	15.13	14.39	15.50	15.89	16.50	17.65	16.91	18.02	18.41
	8H	14.15	15.25	14.58	15.64	16.04	16.55	17.65	16.98	18.04	18.44
	12H	14.27	15.32	14.70	15.70	16.13	16.58	17.63	17.01	18.02	18.45
4H	2H	11.93	13.18	12.33	13.52	13.90	15.04	16.29	15.44	16.64	17.02
	3H	13.80	14.83	14.21	15.23	15.64	16.37	17.41	16.78	17.81	18.21
	4H	14.60	15.53	15.03	15.95	16.39	16.79	17.72	17.22	18.13	18.57
	6H	15.25	16.06	15.70	16.50	16.96	17.11	17.92	17.57	18.36	18.82
	8H	15.47	16.22	15.93	16.67	17.14	17.20	17.96	17.67	18.40	18.87
	12H	15.63	16.31	16.12	16.79	17.26	17.27	17.95	17.76	18.43	18.90
8H	4H	14.95	15.71	15.41	16.15	16.62	16.92	17.68	17.38	18.12	18.59
	6H	15.74	16.37	16.24	16.86	17.34	17.34	17.96	17.84	18.45	18.93
	8H	16.06	16.62	16.57	17.13	17.62	17.49	18.06	18.01	18.57	19.06
	12H	16.32	16.82	16.83	17.31	17.88	17.63	18.13	18.14	18.62	19.19
12H	4H	14.98	15.65	15.46	16.13	16.61	16.92	17.60	17.41	18.08	18.55
	6H	15.80	16.36	16.32	16.87	17.36	17.36	17.92	17.87	18.43	18.92
	8H	16.19	16.68	16.70	17.17	17.74	17.57	18.06	18.08	18.56	19.12