

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: P1060911

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060911  
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-H575D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

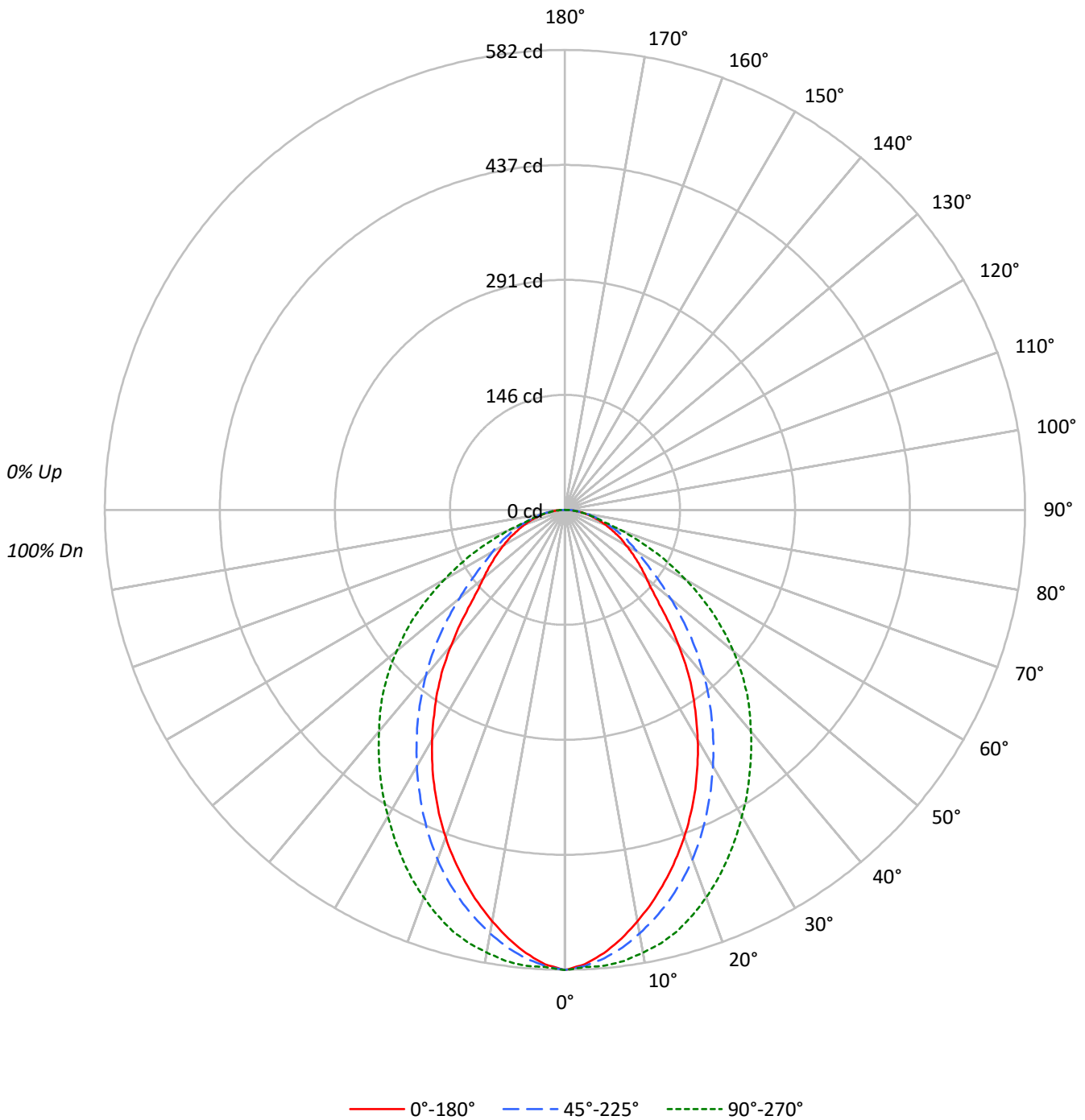
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1068.5 lumens  
Efficiency: N/A  
Efficacy: 61.4 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): 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				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°	5014	5014	5014
5°	4869	4926	5007
10°	4623	4758	4974
15°	4346	4557	4916
20°	4042	4316	4783
25°	3706	4030	4627
30°	3341	3725	4453
35°	2958	3407	4285
40°	2515	3076	4113
45°	2058	2717	3954
50°	1802	2334	3722
55°	1656	2012	3442
60°	1536	1810	3035
65°	1439	1701	2541
70°	1350	1556	1908
75°	1268	1424	1387
80°	1175	1304	1175
85°	1067	1275	1018

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3954 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.8	5.0
10°-20°	144.8	13.6
20°-30°	197.9	18.5
30°-40°	208.0	19.5
40°-50°	180.5	16.9
50°-60°	136.2	12.7
60°-70°	88.3	8.3
70°-80°	45.3	4.2
80°-90°	13.7	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°	396.5	37.1
0°-40°	604.5	56.6
0°-60°	921.2	86.2
0°-90°	1068.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1068.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	563	571	570	575	579	53
15°	488	499	511	534	551	137
25°	390	404	424	457	487	179
35°	281	297	324	367	408	175
45°	169	185	223	279	325	133
55°	110	113	134	190	229	99
65°	71	72	84	101	125	70
75°	38	43	43	43	42	40
85°	11	13	13	12	10	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	582.3	582.3	582.3	582.3	582.3
2.5°	575.6	582.8	577.7	578.7	579.2
5°	563.3	571.0	569.9	574.6	579.2
7.5°	547.3	556.6	558.6	567.9	575.6
10°	528.7	539.0	544.2	559.1	568.9
12.5°	509.1	519.4	528.7	547.8	561.7
15°	487.5	499.4	511.2	534.4	551.4
17.5°	464.8	477.2	492.1	517.4	537.5
20°	441.1	453.5	471.0	498.3	522.0
22.5°	415.9	429.8	448.3	477.7	505.5
25°	390.1	404.0	424.1	456.6	487.0
27.5°	363.3	377.7	399.4	435.4	467.9
30°	336.0	351.5	374.6	412.8	447.8
32.5°	308.2	324.7	349.4	390.1	428.2
35°	281.4	296.8	324.1	367.4	407.6
37.5°	253.5	269.0	298.4	345.3	387.0
40°	223.7	240.7	273.6	322.1	365.9
42.5°	195.8	212.8	248.4	299.9	345.8
45°	169.0	185.0	223.1	278.8	324.7
47.5°	148.4	159.8	197.9	258.2	302.0
50°	134.5	139.7	174.2	235.5	277.8
52.5°	122.1	126.3	152.5	212.8	254.1
55°	110.3	113.4	134.0	190.2	229.3
57.5°	100.0	101.5	117.5	167.5	202.5
60°	89.2	91.2	105.1	144.3	176.2
62.5°	80.4	81.4	94.3	122.1	150.0
65°	70.6	72.1	83.5	101.0	124.7
67.5°	61.8	64.4	72.1	82.5	98.4
70°	53.6	57.2	61.8	67.0	75.8
72.5°	45.9	50.0	52.6	54.6	53.1
75°	38.1	42.8	42.8	43.3	41.7
77.5°	30.9	35.0	34.5	34.0	32.0
80°	23.7	27.3	26.3	25.8	23.7
82.5°	17.5	20.1	19.1	18.6	16.0
85°	10.8	13.4	12.9	12.4	10.3
87.5°	5.2	7.7	7.2	6.7	4.6
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	12.10	13.59	12.47	13.90	14.22	15.84	17.33	16.21	17.64	17.96
	3H	13.77	15.10	14.15	15.43	15.79	16.97	18.30	17.35	18.63	18.99
	4H	14.44	15.69	14.84	16.04	16.41	17.27	18.51	17.67	18.86	19.24
	6H	14.95	16.10	15.36	16.47	16.86	17.47	18.62	17.88	18.99	19.38
	8H	15.12	16.22	15.55	16.61	17.01	17.52	18.62	17.95	19.01	19.41
	12H	15.24	16.29	15.67	16.67	17.10	17.55	18.60	17.98	18.99	19.42
4H	2H	12.90	14.15	13.30	14.49	14.87	16.01	17.26	16.41	17.61	17.99
	3H	14.77	15.80	15.18	16.20	16.61	17.34	18.38	17.75	18.78	19.18
	4H	15.57	16.50	16.01	16.92	17.36	17.76	18.69	18.19	19.10	19.54
	6H	16.21	17.02	16.67	17.47	17.93	18.08	18.89	18.54	19.33	19.79
	8H	16.44	17.19	16.90	17.64	18.11	18.17	18.93	18.64	19.37	19.84
	12H	16.60	17.28	17.09	17.76	18.23	18.24	18.92	18.73	19.40	19.87
8H	4H	15.92	16.68	16.38	17.12	17.59	17.89	18.65	18.35	19.09	19.56
	6H	16.71	17.33	17.21	17.83	18.30	18.31	18.93	18.81	19.43	19.90
	8H	17.03	17.59	17.54	18.10	18.59	18.47	19.03	18.98	19.54	20.03
	12H	17.29	17.79	17.80	18.28	18.85	18.61	19.10	19.12	19.59	20.16
12H	4H	15.95	16.63	16.43	17.11	17.58	17.89	18.57	18.38	19.05	19.52
	6H	16.77	17.33	17.29	17.84	18.33	18.33	18.89	18.85	19.40	19.89
	8H	17.16	17.65	17.67	18.15	18.71	18.54	19.04	19.05	19.53	20.09