

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: P1060920

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060920  
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-H575D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

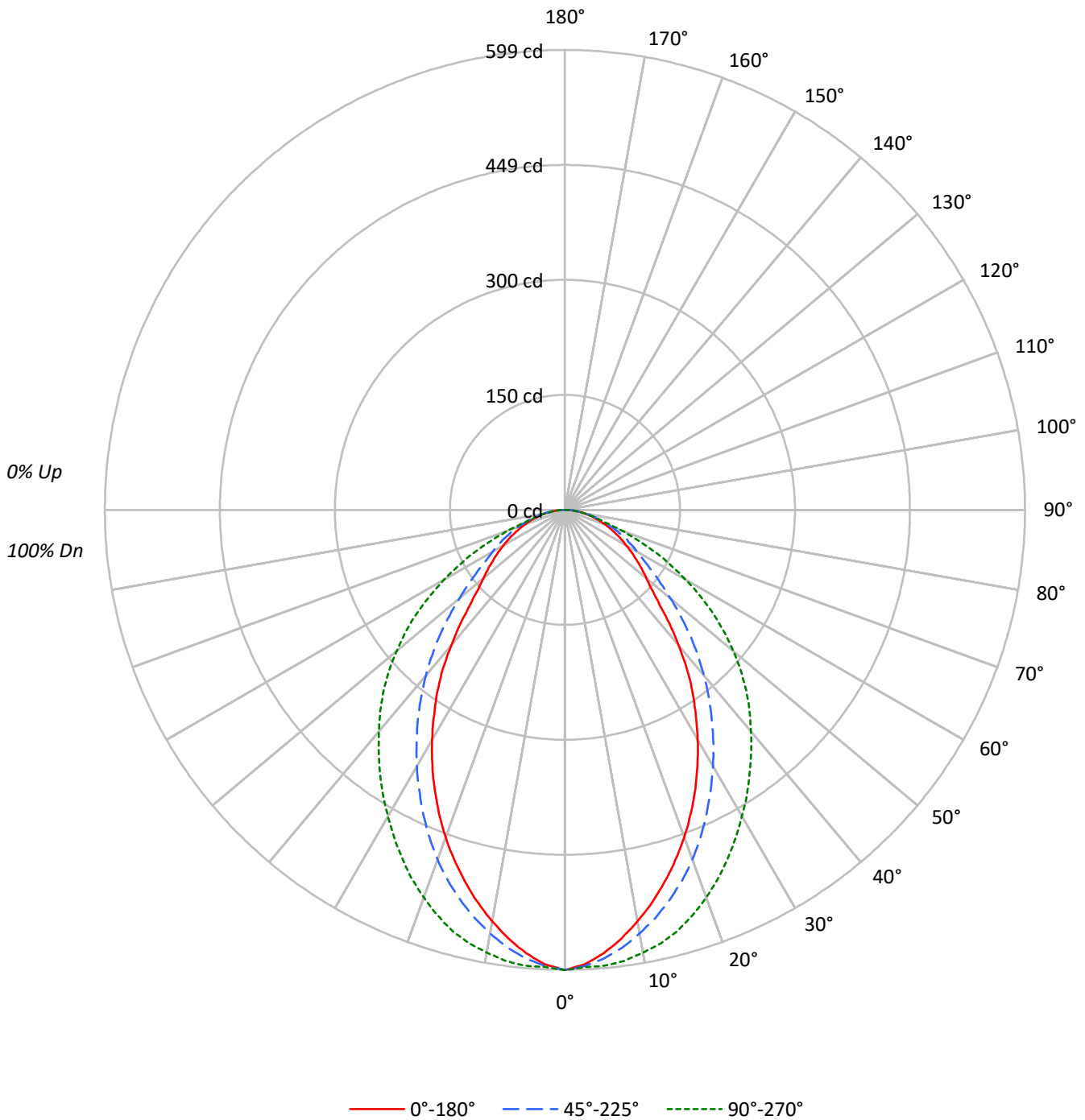
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1099.7 lumens  
Efficiency: N/A  
Efficacy: 63.2 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): 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										
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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65														
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40														
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31														

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

	0°	45°	90°
0°	5161	5161	5161
5°	5011	5071	5153
10°	4758	4897	5120
15°	4473	4690	5059
20°	4160	4443	4924
25°	3815	4147	4762
30°	3438	3834	4583
35°	3044	3507	4410
40°	2588	3165	4233
45°	2119	2796	4069
50°	1854	2402	3830
55°	1704	2070	3543
60°	1581	1863	3124
65°	1481	1750	2614
70°	1390	1601	1964
75°	1304	1464	1431
80°	1210	1339	1210
85°	1097	1314	1047

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4069 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.4	5.0
10°-20°	149.0	13.6
20°-30°	203.7	18.5
30°-40°	214.1	19.5
40°-50°	185.8	16.9
50°-60°	140.1	12.7
60°-70°	90.9	8.3
70°-80°	46.6	4.2
80°-90°	14.1	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°	408.1	37.1
0°-40°	622.2	56.6
0°-60°	948.1	86.2
0°-90°	1099.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1099.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	599	599	599	599	599	
5°	580	588	587	591	596	54
15°	502	514	526	550	568	141
25°	402	416	436	470	501	184
35°	290	306	334	378	420	180
45°	174	190	230	287	334	137
55°	114	117	138	196	236	102
65°	73	74	86	104	128	72
75°	39	44	44	45	43	42
85°	11	14	13	13	11	13
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	599.3	599.3	599.3	599.3	599.3
2.5°	592.4	599.8	594.5	595.6	596.1
5°	579.7	587.6	586.6	591.4	596.1
7.5°	563.2	572.8	574.9	584.5	592.4
10°	544.2	554.8	560.1	575.4	585.5
12.5°	524.0	534.6	544.2	563.8	578.1
15°	501.7	513.9	526.1	550.0	567.5
17.5°	478.4	491.1	506.5	532.5	553.2
20°	454.0	466.7	484.8	512.9	537.3
22.5°	428.0	442.3	461.4	491.6	520.3
25°	401.5	415.8	436.5	469.9	501.2
27.5°	373.9	388.8	411.0	448.2	481.6
30°	345.8	361.7	385.6	424.8	460.9
32.5°	317.2	334.1	359.6	401.5	440.7
35°	289.6	305.5	333.6	378.1	419.5
37.5°	260.9	276.8	307.1	355.3	398.3
40°	230.2	247.7	281.6	331.5	376.6
42.5°	201.5	219.0	255.6	308.7	355.9
45°	174.0	190.4	229.6	286.9	334.1
47.5°	152.7	164.4	203.7	265.7	310.8
50°	138.4	143.7	179.3	242.4	285.9
52.5°	125.7	129.9	157.0	219.0	261.5
55°	113.5	116.7	137.9	195.7	236.0
57.5°	102.9	104.5	120.9	172.4	208.4
60°	91.8	93.9	108.2	148.5	181.4
62.5°	82.7	83.8	97.1	125.7	154.3
65°	72.7	74.3	85.9	104.0	128.3
67.5°	63.6	66.3	74.3	84.9	101.3
70°	55.2	58.9	63.6	68.9	78.0
72.5°	47.2	51.4	54.1	56.2	54.6
75°	39.2	44.0	44.0	44.6	43.0
77.5°	31.8	36.1	35.5	35.0	32.9
80°	24.4	28.1	27.0	26.5	24.4
82.5°	18.0	20.7	19.6	19.1	16.4
85°	11.1	13.8	13.3	12.7	10.6
87.5°	5.3	8.0	7.4	6.9	4.8
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	12.21	13.69	12.57	14.01	14.32	15.94	17.43	16.31	17.74	18.06
	3H	13.87	15.21	14.25	15.53	15.90	17.07	18.40	17.45	18.73	19.09
	4H	14.54	15.79	14.94	16.14	16.52	17.37	18.61	17.77	18.96	19.34
	6H	15.05	16.20	15.46	16.57	16.96	17.57	18.72	17.98	19.09	19.48
	8H	15.22	16.32	15.65	16.71	17.11	17.62	18.72	18.05	19.11	19.51
	12H	15.34	16.39	15.77	16.77	17.20	17.65	18.70	18.08	19.09	19.51
4H	2H	13.00	14.25	13.40	14.60	14.97	16.11	17.36	16.51	17.71	18.09
	3H	14.87	15.90	15.28	16.30	16.71	17.44	18.47	17.85	18.88	19.28
	4H	15.67	16.60	16.11	17.02	17.46	17.86	18.79	18.29	19.20	19.64
	6H	16.32	17.13	16.77	17.57	18.03	18.18	18.99	18.64	19.43	19.89
	8H	16.54	17.30	17.00	17.74	18.21	18.27	19.03	18.74	19.47	19.94
	12H	16.70	17.38	17.19	17.86	18.33	18.34	19.02	18.83	19.50	19.97
8H	4H	16.02	16.78	16.48	17.22	17.69	17.99	18.75	18.45	19.19	19.66
	6H	16.81	17.43	17.31	17.93	18.40	18.41	19.03	18.91	19.53	20.00
	8H	17.13	17.69	17.64	18.20	18.69	18.56	19.13	19.08	19.64	20.13
	12H	17.39	17.89	17.90	18.38	18.95	18.70	19.20	19.21	19.69	20.26
12H	4H	16.05	16.73	16.53	17.20	17.68	17.99	18.67	18.48	19.15	19.62
	6H	16.87	17.43	17.39	17.94	18.43	18.43	18.99	18.94	19.50	19.99
	8H	17.26	17.75	17.77	18.25	18.81	18.64	19.13	19.15	19.63	20.19