

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: P1060938

Luminaire Tested: S124RDR-H575D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060938  
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-H575D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

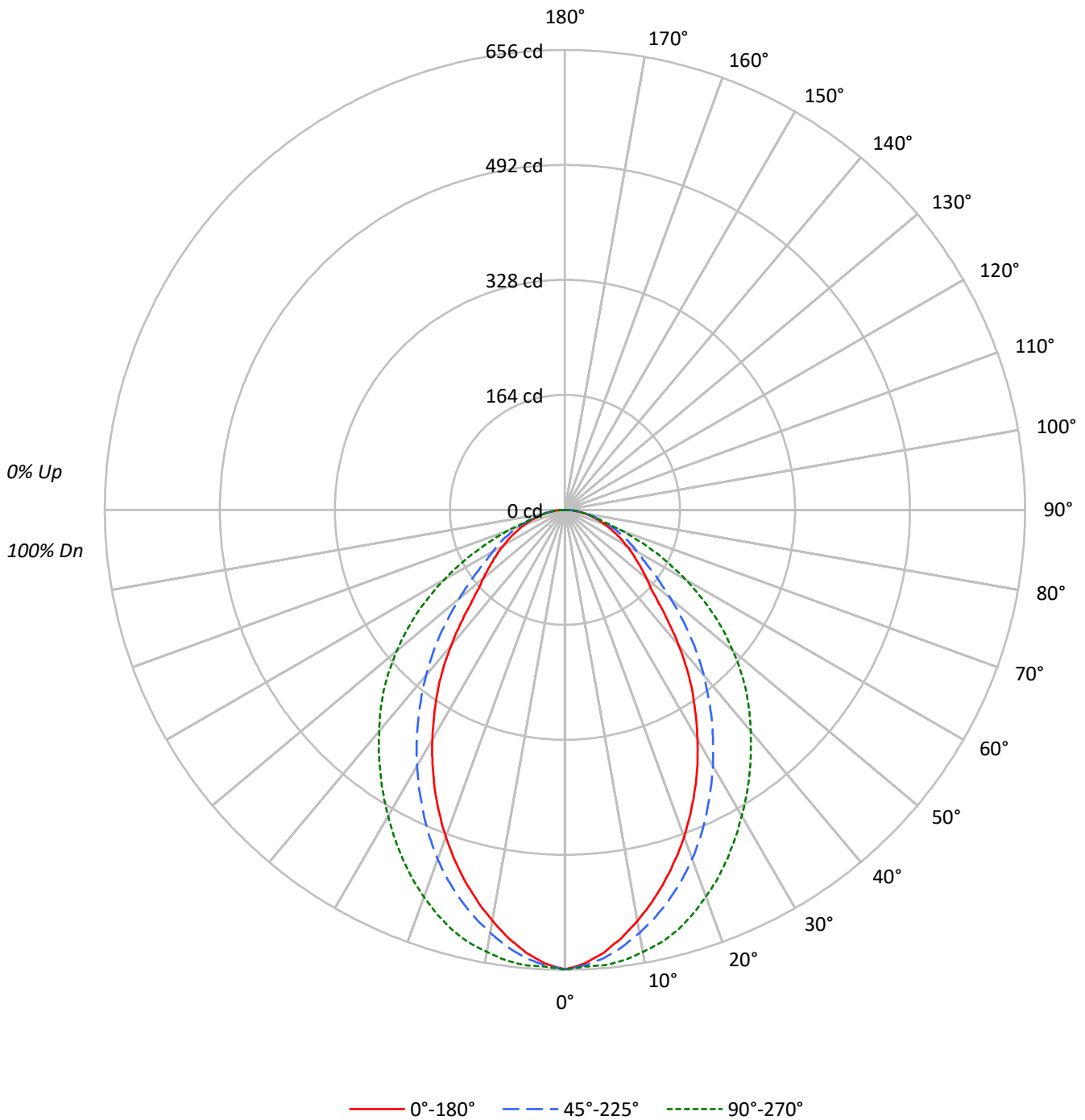
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1202.8 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): 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	100	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	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	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	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	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	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	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	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	
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	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	

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

	0°	45°	90°
0°	5645	5645	5645
5°	5480	5546	5636
10°	5204	5357	5600
15°	4892	5130	5533
20°	4550	4859	5385
25°	4172	4536	5209
30°	3761	4193	5012
35°	3329	3836	4823
40°	2830	3462	4630
45°	2317	3059	4450
50°	2028	2627	4189
55°	1863	2264	3875
60°	1729	2037	3417
65°	1620	1915	2861
70°	1518	1752	2148
75°	1427	1600	1564
80°	1324	1468	1324
85°	1205	1433	1146

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4450 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.6	5.0
10°-20°	163.0	13.6
20°-30°	222.8	18.5
30°-40°	234.1	19.5
40°-50°	203.2	16.9
50°-60°	153.3	12.7
60°-70°	99.4	8.3
70°-80°	51.0	4.2
80°-90°	15.4	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°	446.4	37.1
0°-40°	680.5	56.6
0°-60°	1037.0	86.2
0°-90°	1202.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1202.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	634	643	642	647	652	59
15°	549	562	575	602	621	154
25°	439	455	477	514	548	201
35°	317	334	365	414	459	197
45°	190	208	251	314	365	150
55°	124	128	151	214	258	112
65°	80	81	94	114	140	79
75°	43	48	48	49	47	46
85°	12	15	14	14	12	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	655.5	655.5	655.5	655.5	655.5
2.5°	647.9	656.1	650.3	651.4	652.0
5°	634.0	642.7	641.6	646.8	652.0
7.5°	616.0	626.5	628.8	639.2	647.9
10°	595.2	606.8	612.6	629.4	640.4
12.5°	573.1	584.7	595.2	616.6	632.3
15°	548.7	562.1	575.4	601.5	620.7
17.5°	523.2	537.1	554.0	582.4	605.0
20°	496.5	510.5	530.2	560.9	587.6
22.5°	468.1	483.8	504.7	537.7	569.0
25°	439.1	454.8	477.4	513.9	548.2
27.5°	408.9	425.2	449.6	490.2	526.7
30°	378.2	395.6	421.7	464.6	504.1
32.5°	346.9	365.4	393.3	439.1	482.0
35°	316.7	334.1	364.9	413.6	458.8
37.5°	285.4	302.8	335.9	388.6	435.6
40°	251.8	270.9	308.0	362.5	411.9
42.5°	220.4	239.6	279.6	337.6	389.2
45°	190.3	208.2	251.2	313.8	365.4
47.5°	167.1	179.8	222.7	290.6	339.9
50°	151.4	157.2	196.1	265.1	312.7
52.5°	137.5	142.1	171.7	239.6	286.0
55°	124.1	127.6	150.8	214.0	258.1
57.5°	112.5	114.3	132.3	188.5	228.0
60°	100.4	102.7	118.3	162.4	198.4
62.5°	90.5	91.7	106.2	137.5	168.8
65°	79.5	81.2	94.0	113.7	140.4
67.5°	69.6	72.5	81.2	92.8	110.8
70°	60.3	64.4	69.6	75.4	85.3
72.5°	51.6	56.3	59.2	61.5	59.7
75°	42.9	48.1	48.1	48.7	47.0
77.5°	34.8	39.4	38.9	38.3	36.0
80°	26.7	30.7	29.6	29.0	26.7
82.5°	19.7	22.6	21.5	20.9	18.0
85°	12.2	15.1	14.5	13.9	11.6
87.5°	5.8	8.7	8.1	7.5	5.2
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	12.52	14.00	12.88	14.32	14.63	16.25	17.74	16.62	18.05	18.37
	3H	14.18	15.52	14.56	15.84	16.21	17.38	18.71	17.76	19.04	19.40
	4H	14.85	16.10	15.25	16.45	16.83	17.68	18.92	18.08	19.27	19.65
	6H	15.36	16.51	15.77	16.88	17.27	17.88	19.03	18.29	19.40	19.79
	8H	15.53	16.63	15.96	17.02	17.42	17.93	19.03	18.36	19.42	19.82
	12H	15.65	16.70	16.08	17.08	17.51	17.96	19.01	18.39	19.40	19.83
4H	2H	13.31	14.56	13.71	14.91	15.29	16.42	17.67	16.82	18.02	18.40
	3H	15.18	16.22	15.59	16.62	17.02	17.75	18.79	18.16	19.19	19.59
	4H	15.98	16.92	16.42	17.33	17.77	18.17	19.10	18.60	19.51	19.95
	6H	16.63	17.44	17.08	17.88	18.34	18.49	19.30	18.95	19.74	20.20
	8H	16.85	17.61	17.31	18.05	18.52	18.58	19.34	19.05	19.78	20.25
	12H	17.01	17.69	17.50	18.17	18.64	18.65	19.33	19.14	19.81	20.28
8H	4H	16.33	17.09	16.80	17.53	18.00	18.30	19.06	18.76	19.50	19.97
	6H	17.12	17.75	17.62	18.24	18.72	18.72	19.34	19.22	19.84	20.31
	8H	17.44	18.00	17.95	18.51	19.00	18.88	19.44	19.39	19.95	20.44
	12H	17.70	18.20	18.21	18.69	19.26	19.02	19.51	19.53	20.00	20.57
12H	4H	16.36	17.04	16.84	17.52	17.99	18.30	18.98	18.79	19.46	19.93
	6H	17.18	17.74	17.70	18.25	18.74	18.74	19.30	19.26	19.81	20.30
	8H	17.57	18.06	18.08	18.56	19.12	18.95	19.45	19.46	19.94	20.50