

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060470

Luminaire Tested: S124RDRP-S575D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060470  
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: S124RDRP-S575D830-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

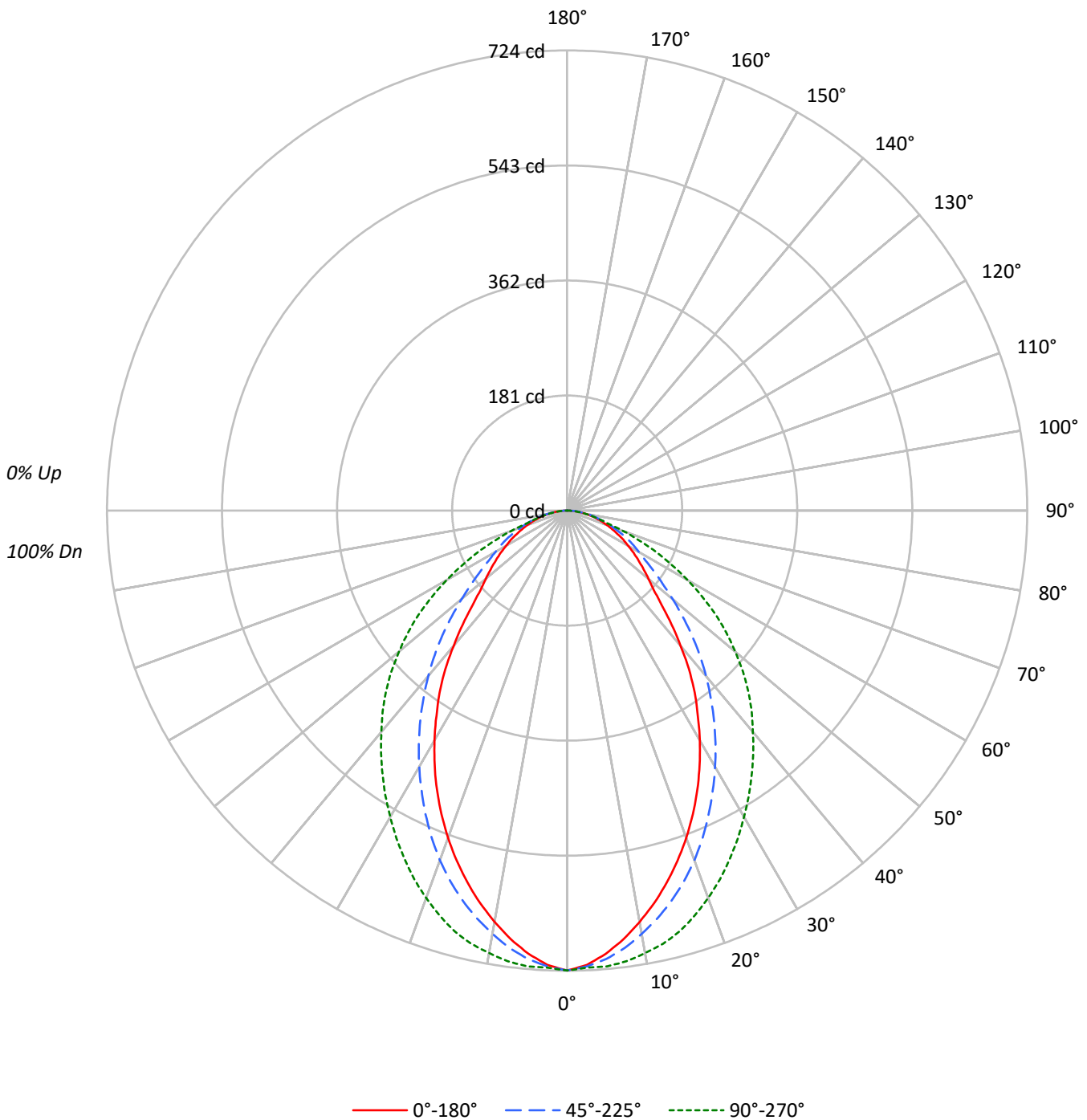
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1327.7 lumens  
Efficiency: N/A  
Efficacy: 67.7 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): 19.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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°	6231	6231	6231
5°	6050	6122	6222
10°	5745	5913	6182
15°	5401	5663	6108
20°	5023	5364	5945
25°	4605	5007	5749
30°	4151	4629	5533
35°	3675	4234	5324
40°	3124	3822	5111
45°	2557	3377	4913
50°	2239	2899	4624
55°	2057	2500	4279
60°	1908	2249	3772
65°	1787	2113	3158
70°	1677	1934	2369
75°	1577	1767	1727
80°	1463	1622	1463
85°	1324	1581	1265

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4913 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.9	5.0
10°-20°	179.9	13.6
20°-30°	245.9	18.5
30°-40°	258.5	19.5
40°-50°	224.3	16.9
50°-60°	169.2	12.7
60°-70°	109.7	8.3
70°-80°	56.3	4.2
80°-90°	17.1	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°	492.7	37.1
0°-40°	751.2	56.6
0°-60°	1144.7	86.2
0°-90°	1327.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1327.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	700	710	708	714	720	65
15°	606	620	635	664	685	170
25°	485	502	527	567	605	222
35°	350	369	403	457	506	217
45°	210	230	277	346	403	165
55°	137	141	166	236	285	123
65°	88	90	104	126	155	87
75°	47	53	53	54	52	50
85°	13	17	16	15	13	15
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	723.6	723.6	723.6	723.6	723.6
2.5°	715.3	724.2	717.8	719.1	719.8
5°	699.9	709.5	708.2	714.0	719.8
7.5°	680.1	691.6	694.1	705.7	715.3
10°	657.0	669.8	676.2	694.8	707.0
12.5°	632.7	645.5	657.0	680.7	698.0
15°	605.8	620.5	635.2	664.0	685.2
17.5°	577.6	593.0	611.5	642.9	667.9
20°	548.1	563.5	585.3	619.2	648.7
22.5°	516.8	534.1	557.1	593.6	628.2
25°	484.7	502.0	527.0	567.4	605.1
27.5°	451.4	469.4	496.3	541.1	581.4
30°	417.5	436.7	465.5	512.9	556.5
32.5°	382.9	403.4	434.2	484.7	532.1
35°	349.6	368.8	402.8	456.6	506.5
37.5°	315.1	334.3	370.8	429.0	480.9
40°	277.9	299.0	340.0	400.2	454.7
42.5°	243.3	264.5	308.7	372.7	429.7
45°	210.0	229.9	277.3	346.4	403.4
47.5°	184.4	198.5	245.9	320.8	375.2
50°	167.1	173.5	216.4	292.6	345.2
52.5°	151.8	156.9	189.5	264.5	315.7
55°	137.0	140.9	166.5	236.3	285.0
57.5°	124.2	126.1	146.0	208.1	251.7
60°	110.8	113.3	130.6	179.3	219.0
62.5°	99.9	101.2	117.2	151.8	186.3
65°	87.7	89.6	103.7	125.5	155.0
67.5°	76.8	80.0	89.6	102.5	122.3
70°	66.6	71.1	76.8	83.2	94.1
72.5°	57.0	62.1	65.3	67.9	66.0
75°	47.4	53.1	53.1	53.8	51.9
77.5°	38.4	43.5	42.9	42.3	39.7
80°	29.5	33.9	32.7	32.0	29.5
82.5°	21.8	25.0	23.7	23.1	19.9
85°	13.4	16.6	16.0	15.4	12.8
87.5°	6.4	9.6	9.0	8.3	5.8
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	12.86	14.34	13.22	14.66	14.97	16.60	18.08	16.96	18.40	18.71
	3H	14.52	15.86	14.90	16.19	16.55	17.72	19.06	18.10	19.38	19.75
	4H	15.19	16.44	15.59	16.79	17.17	18.02	19.27	18.42	19.62	20.00
	6H	15.70	16.85	16.11	17.22	17.61	18.22	19.37	18.63	19.74	20.13
	8H	15.87	16.97	16.30	17.36	17.76	18.27	19.37	18.70	19.76	20.16
	12H	15.99	17.04	16.43	17.43	17.86	18.31	19.36	18.74	19.74	20.17
4H	2H	13.65	14.90	14.05	15.25	15.63	16.76	18.01	17.16	18.36	18.74
	3H	15.52	16.56	15.93	16.96	17.36	18.09	19.13	18.50	19.53	19.93
	4H	16.33	17.26	16.76	17.67	18.11	18.51	19.44	18.94	19.86	20.30
	6H	16.97	17.78	17.43	18.22	18.68	18.83	19.64	19.29	20.08	20.55
	8H	17.19	17.95	17.66	18.39	18.86	18.93	19.68	19.39	20.13	20.60
	12H	17.36	18.03	17.84	18.51	18.98	19.00	19.67	19.48	20.15	20.62
8H	4H	16.67	17.43	17.14	17.87	18.34	18.64	19.40	19.11	19.84	20.31
	6H	17.46	18.09	17.96	18.58	19.06	19.06	19.69	19.56	20.18	20.66
	8H	17.78	18.34	18.30	18.85	19.34	19.22	19.78	19.74	20.29	20.78
	12H	18.05	18.54	18.56	19.03	19.60	19.36	19.86	19.87	20.35	20.91
12H	4H	16.70	17.38	17.19	17.86	18.33	18.65	19.32	19.13	19.80	20.27
	6H	17.52	18.09	18.04	18.60	19.09	19.08	19.65	19.60	20.16	20.65
	8H	17.91	18.41	18.42	18.90	19.47	19.29	19.79	19.80	20.28	20.85