

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: P1060307

Luminaire Tested: S124RDRP-S1195D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060307  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1195D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

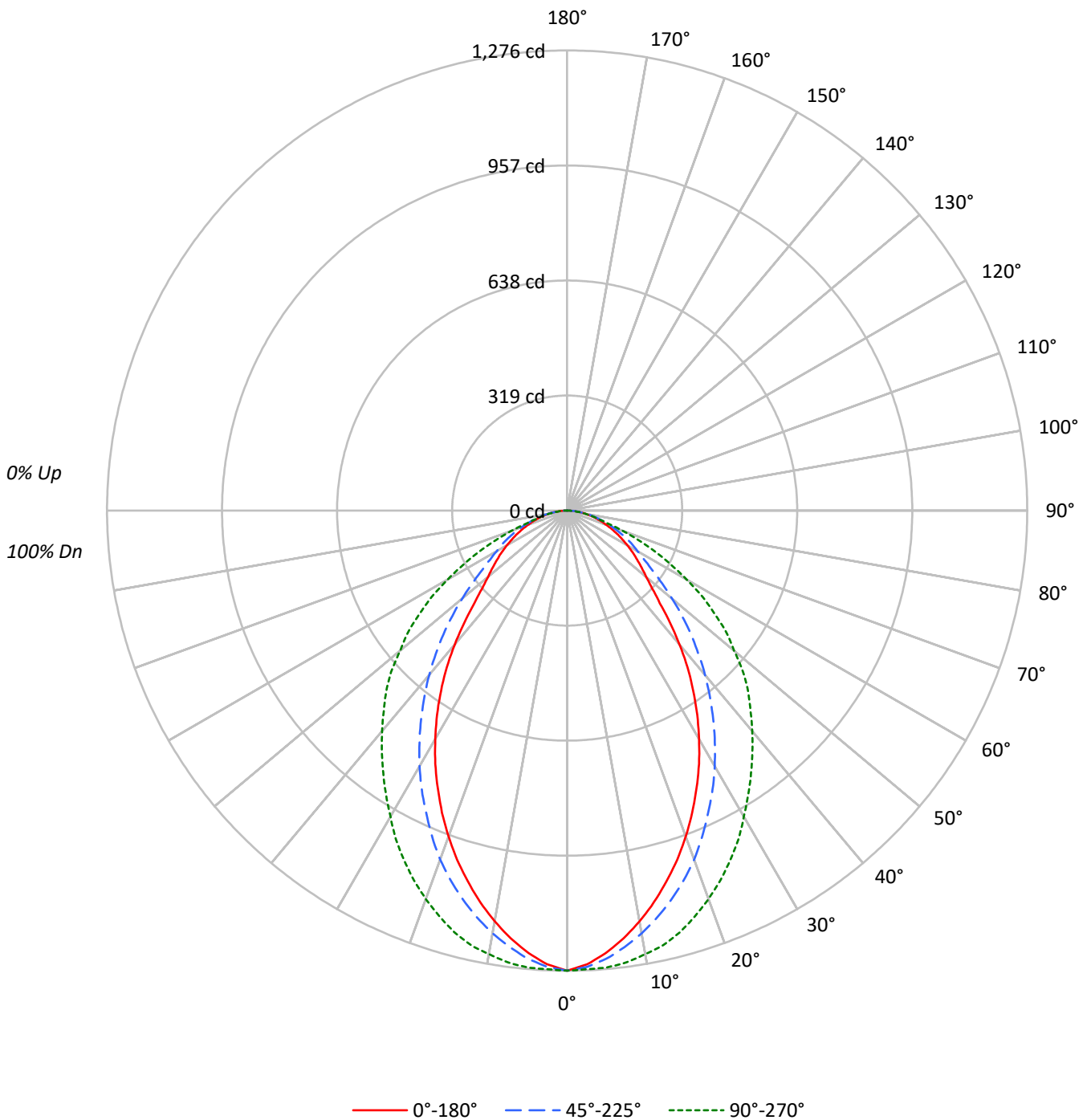
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2322.5 lumens  
Efficiency: N/A  
Efficacy: 55.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

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

	0°	45°	90°
0°	10985	10985	10985
5°	10645	10784	10993
10°	10114	10406	10920
15°	9489	9953	10788
20°	8810	9435	10502
25°	8068	8792	10164
30°	7273	8138	9745
35°	6410	7422	9347
40°	5456	6688	8974
45°	4429	5911	8646
50°	3834	5088	8097
55°	3554	4316	7508
60°	3317	3892	6586
65°	3105	3651	5477
70°	2895	3366	4142
75°	2758	3114	2981
80°	2584	2851	2519
85°	2381	2638	1986

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8646 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.8	5.1
10°-20°	316.6	13.6
20°-30°	432.3	18.6
30°-40°	452.9	19.5
40°-50°	392.0	16.9
50°-60°	294.6	12.7
60°-70°	189.9	8.2
70°-80°	97.4	4.2
80°-90°	29.1	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°	866.6	37.3
0°-40°	1319.5	56.8
0°-60°	2006.0	86.4
0°-90°	2322.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2322.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1232	1250	1248	1257	1272	115
15°	1064	1091	1116	1167	1210	298
25°	849	881	925	998	1070	390
35°	610	644	706	800	889	380
45°	364	401	485	604	710	287
55°	237	245	288	410	500	213
65°	152	155	179	217	269	151
75°	83	92	94	92	90	88
85°	24	28	27	25	20	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1275.7	1275.7	1275.7	1275.7	1275.7
2.5°	1259.6	1275.7	1266.3	1269.0	1273.0
5°	1231.5	1250.3	1247.6	1256.9	1271.7
7.5°	1196.8	1216.8	1220.8	1242.2	1263.6
10°	1156.7	1179.4	1190.1	1222.2	1248.9
12.5°	1112.5	1136.6	1155.3	1195.4	1234.2
15°	1064.4	1091.1	1116.5	1167.4	1210.1
17.5°	1014.9	1041.7	1075.1	1131.2	1179.4
20°	961.4	990.8	1029.6	1088.5	1146.0
22.5°	906.6	937.4	978.8	1043.0	1109.9
25°	849.1	881.2	925.3	997.5	1069.7
27.5°	791.6	823.7	873.2	949.4	1028.3
30°	731.4	764.9	818.4	901.3	980.1
32.5°	671.3	707.4	762.2	850.4	934.7
35°	609.8	644.5	706.0	799.6	889.2
37.5°	548.2	584.3	649.9	750.2	843.8
40°	485.4	522.8	595.0	700.7	798.3
42.5°	422.5	462.7	538.9	649.9	752.8
45°	363.7	401.2	485.4	604.4	710.0
47.5°	319.6	345.0	431.9	560.3	661.9
50°	286.2	299.5	379.8	512.1	604.4
52.5°	260.7	270.1	331.6	460.0	557.6
55°	236.7	244.7	287.5	410.5	500.1
57.5°	215.3	219.3	254.1	362.4	445.3
60°	192.6	196.6	226.0	310.2	382.4
62.5°	172.5	175.2	203.3	260.7	324.9
65°	152.4	155.1	179.2	216.6	268.8
67.5°	133.7	137.7	156.4	176.5	213.9
70°	115.0	123.0	133.7	143.1	164.5
72.5°	99.0	107.0	112.3	115.0	116.3
75°	82.9	92.3	93.6	92.3	89.6
77.5°	66.9	74.9	74.9	72.2	69.5
80°	52.1	58.8	57.5	54.8	50.8
82.5°	38.8	42.8	41.5	38.8	34.8
85°	24.1	28.1	26.7	25.4	20.1
87.5°	12.0	16.0	14.7	13.4	8.0
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	14.76	16.24	15.12	16.56	16.87	18.53	20.02	18.90	20.33	20.64
	3H	16.41	17.74	16.79	18.07	18.43	19.65	20.98	20.02	21.30	21.67
	4H	17.08	18.33	17.48	18.68	19.06	19.94	21.18	20.34	21.53	21.91
	6H	17.60	18.75	18.01	19.11	19.51	20.13	21.28	20.55	21.65	22.04
	8H	17.78	18.87	18.21	19.26	19.66	20.19	21.28	20.61	21.67	22.07
	12H	17.90	18.95	18.34	19.33	19.76	20.21	21.26	20.64	21.64	22.07
4H	2H	15.54	16.79	15.94	17.14	17.52	18.69	19.94	19.09	20.29	20.67
	3H	17.40	18.44	17.81	18.84	19.24	20.00	21.04	20.41	21.44	21.84
	4H	18.21	19.14	18.65	19.56	20.00	20.41	21.34	20.84	21.76	22.20
	6H	18.86	19.67	19.32	20.11	20.57	20.73	21.53	21.19	21.98	22.44
	8H	19.09	19.84	19.55	20.29	20.75	20.82	21.57	21.28	22.02	22.49
	12H	19.26	19.93	19.74	20.41	20.88	20.88	21.55	21.36	22.03	22.51
8H	4H	18.56	19.32	19.03	19.76	20.23	20.54	21.30	21.01	21.74	22.21
	6H	19.35	19.98	19.85	20.47	20.95	20.96	21.58	21.45	22.07	22.55
	8H	19.68	20.23	20.19	20.75	21.23	21.11	21.67	21.62	22.18	22.67
	12H	19.94	20.43	20.45	20.93	21.49	21.23	21.73	21.74	22.22	22.78
12H	4H	18.59	19.26	19.07	19.74	20.21	20.55	21.22	21.03	21.70	22.17
	6H	19.42	19.98	19.93	20.49	20.98	20.98	21.54	21.49	22.05	22.54
	8H	19.80	20.30	20.31	20.79	21.36	21.18	21.67	21.69	22.17	22.73