

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: P1060737

Luminaire Tested: S124RDR-H1195D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060737  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

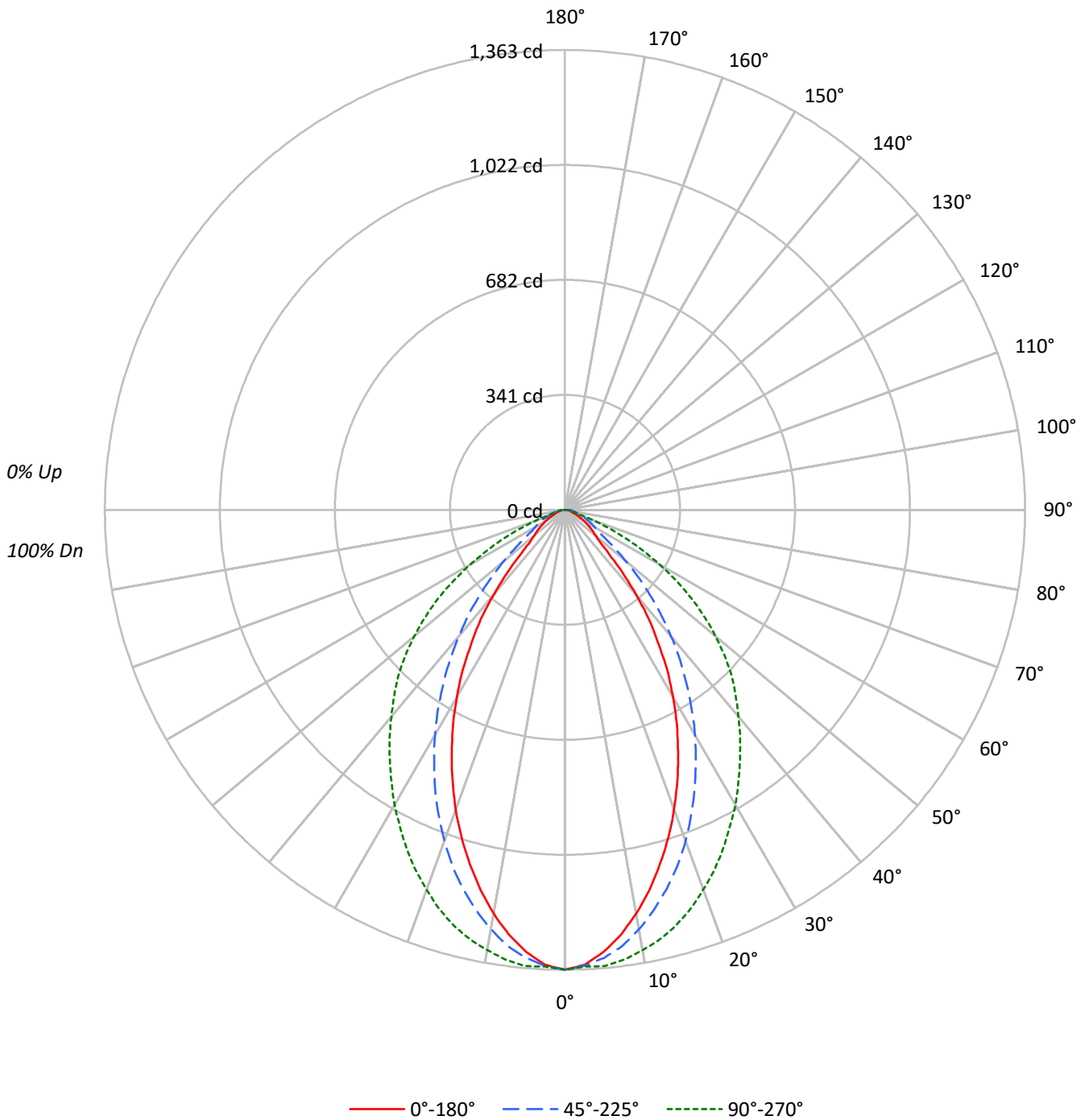
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1928.9 lumens  
Efficiency: N/A  
Efficacy: 52.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
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				
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				

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

	0°	45°	90°
0°	11735	11735	11735
5°	11372	11517	11727
10°	10625	11038	11584
15°	9692	10372	11362
20°	8665	9572	10982
25°	7537	8652	10532
30°	6359	7661	10039
35°	5058	6595	9508
40°	3680	5495	8986
45°	2225	4339	8511
50°	1592	3141	7793
55°	1348	2126	6880
60°	1102	1731	5559
65°	868	1551	4002
70°	728	1304	2107
75°	659	1214	1065
80°	679	1210	1056
85°	899	1808	1205

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8511 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.5	6.5
10°-20°	328.8	17.0
20°-30°	426.4	22.1
30°-40°	410.5	21.3
40°-50°	305.4	15.8
50°-60°	187.8	9.7
60°-70°	92.2	4.8
70°-80°	36.0	1.9
80°-90°	16.4	0.9
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°	880.7	45.7
0°-40°	1291.1	66.9
0°-60°	1784.3	92.5
0°-90°	1928.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1928.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1316	1335	1332	1345	1357	122
15°	1087	1122	1163	1233	1274	304
25°	793	836	911	1025	1108	363
35°	481	527	627	784	904	301
45°	183	227	356	550	699	152
55°	90	93	142	323	458	81
65°	43	46	76	122	196	44
75°	20	35	36	34	32	22
85°	9	17	18	18	12	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1362.8	1362.8	1362.8	1362.8	1362.8
2.5°	1349.1	1364.3	1352.2	1353.7	1355.2
5°	1315.6	1335.4	1332.4	1344.6	1356.7
7.5°	1269.9	1292.8	1303.4	1327.8	1344.6
10°	1215.1	1241.0	1262.3	1301.9	1324.8
12.5°	1154.2	1184.7	1215.1	1268.4	1303.4
15°	1087.2	1122.2	1163.4	1233.4	1274.5
17.5°	1018.7	1053.7	1107.0	1187.7	1239.5
20°	945.6	983.7	1044.6	1134.4	1198.4
22.5°	869.5	910.6	977.6	1079.6	1155.7
25°	793.3	836.0	910.6	1024.8	1108.5
27.5°	717.2	758.3	839.0	966.9	1058.3
30°	639.5	682.2	770.5	904.5	1009.6
32.5°	564.9	604.5	698.9	845.1	956.3
35°	481.2	526.9	627.4	784.2	904.5
37.5°	409.6	450.7	558.8	723.3	852.7
40°	327.4	373.1	488.8	663.9	799.4
42.5°	251.2	296.9	421.8	604.5	749.2
45°	182.7	226.9	356.3	549.7	698.9
47.5°	138.6	164.5	292.4	496.4	642.6
50°	118.8	126.4	234.5	438.5	581.7
52.5°	105.1	108.1	182.7	380.7	520.8
55°	89.8	92.9	141.6	322.8	458.3
57.5°	76.1	77.7	114.2	268.0	391.3
60°	64.0	65.5	100.5	214.7	322.8
62.5°	53.3	54.8	89.8	166.0	257.3
65°	42.6	45.7	76.1	121.8	196.4
67.5°	35.0	41.1	64.0	85.3	137.0
70°	28.9	39.6	51.8	59.4	83.7
72.5°	24.4	36.5	44.2	42.6	41.1
75°	19.8	35.0	36.5	33.5	32.0
77.5°	16.7	30.5	30.5	27.4	25.9
80°	13.7	24.4	24.4	24.4	21.3
82.5°	12.2	19.8	21.3	21.3	16.7
85°	9.1	16.7	18.3	18.3	12.2
87.5°	6.1	15.2	16.7	15.2	9.1
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	8.34	9.68	8.71	10.00	10.31	17.51	18.85	17.87	19.16	19.48
	3H	9.45	10.64	9.83	10.97	11.34	18.02	19.21	18.39	19.54	19.90
	4H	9.97	11.08	10.37	11.43	11.81	18.04	19.15	18.44	19.50	19.88
	6H	10.40	11.42	10.82	11.79	12.19	18.05	19.07	18.46	19.44	19.83
	8H	10.59	11.56	11.02	11.95	12.36	18.05	19.02	18.48	19.41	19.81
	12H	10.77	11.70	11.21	12.08	12.51	18.05	18.98	18.48	19.36	19.79
4H	2H	9.49	10.60	9.89	10.95	11.33	17.40	18.51	17.80	18.86	19.24
	3H	10.83	11.74	11.24	12.14	12.54	17.99	18.90	18.40	19.30	19.71
	4H	11.56	12.37	12.00	12.79	13.24	18.05	18.86	18.48	19.28	19.72
	6H	12.17	12.87	12.63	13.32	13.78	18.12	18.83	18.59	19.27	19.74
	8H	12.41	13.07	12.88	13.52	13.99	18.15	18.81	18.62	19.26	19.73
	12H	12.65	13.23	13.13	13.71	14.19	18.20	18.78	18.68	19.26	19.73
8H	4H	12.03	12.68	12.50	13.13	13.60	18.01	18.66	18.48	19.11	19.58
	6H	12.88	13.42	13.38	13.91	14.39	18.13	18.67	18.64	19.17	19.65
	8H	13.29	13.77	13.81	14.28	14.78	18.22	18.70	18.74	19.22	19.71
	12H	13.71	14.13	14.22	14.63	15.20	18.34	18.77	18.85	19.26	19.83
12H	4H	12.08	12.66	12.57	13.15	13.62	17.98	18.56	18.47	19.04	19.52
	6H	13.01	13.49	13.53	14.01	14.50	18.12	18.60	18.64	19.11	19.61
	8H	13.53	13.96	14.05	14.46	15.03	18.25	18.68	18.76	19.17	19.74