

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: P1060719

Luminaire Tested: S124RDR-H1195D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060719  
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-H1195D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

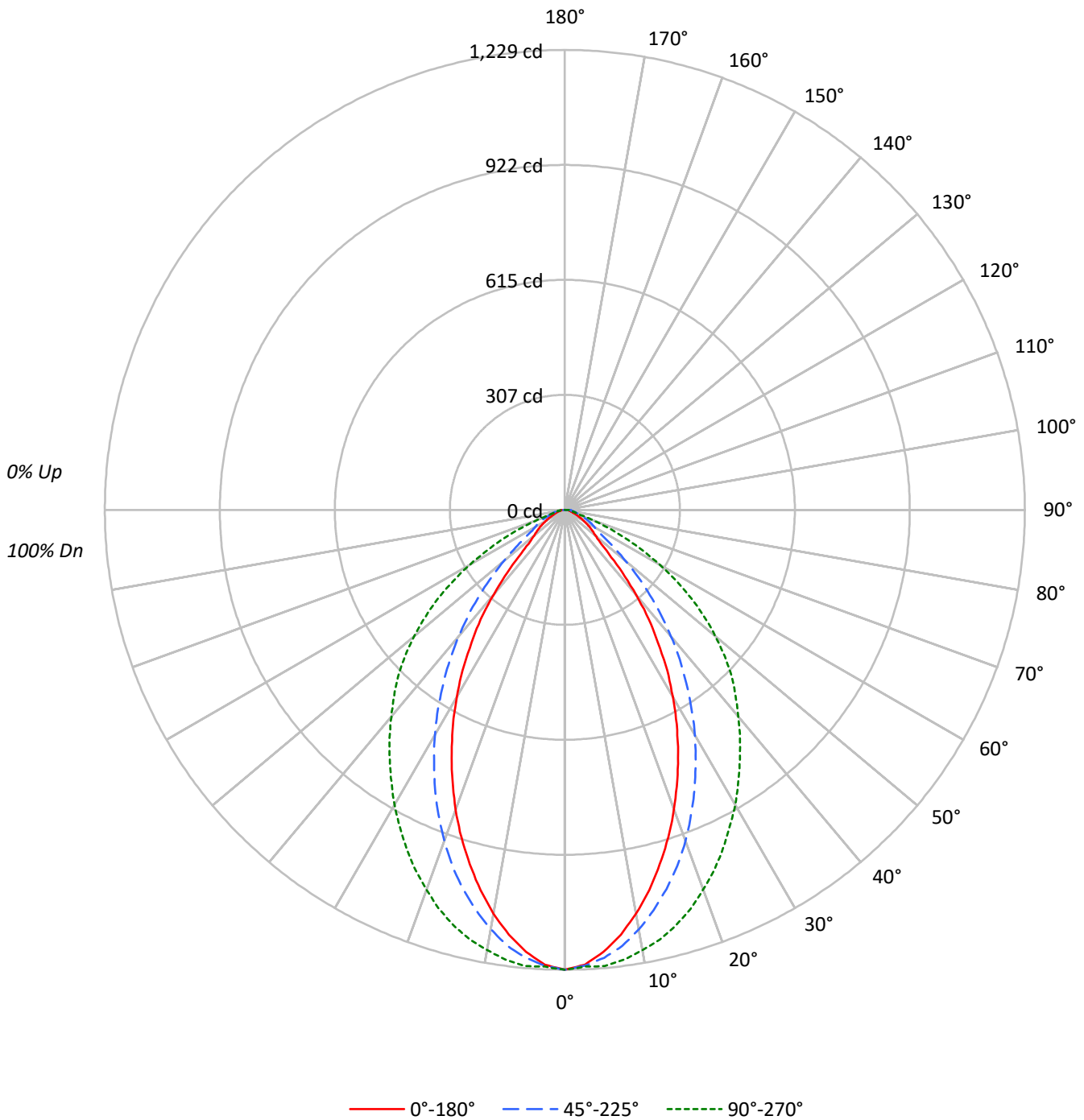
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1739.3 lumens  
Efficiency: N/A  
Efficacy: 47.7 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	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°	10582	10582	10582
5°	10254	10385	10575
10°	9581	9953	10446
15°	8740	9352	10245
20°	7814	8631	9902
25°	6797	7802	9498
30°	5734	6909	9051
35°	4561	5947	8574
40°	3318	4954	8104
45°	2007	3913	7675
50°	1435	2832	7026
55°	1216	1917	6205
60°	994	1560	5013
65°	782	1400	3609
70°	657	1176	1901
75°	592	1098	958
80°	615	1091	952
85°	810	1630	1087

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7675 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.1	6.5
10°-20°	296.5	17.0
20°-30°	384.5	22.1
30°-40°	370.1	21.3
40°-50°	275.3	15.8
50°-60°	169.3	9.7
60°-70°	83.2	4.8
70°-80°	32.4	1.9
80°-90°	14.8	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°	794.1	45.7
0°-40°	1164.2	66.9
0°-60°	1608.9	92.5
0°-90°	1739.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1739.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1186	1204	1201	1212	1223	110
15°	980	1012	1049	1112	1149	274
25°	715	754	821	924	1000	327
35°	434	475	566	707	816	271
45°	165	205	321	496	630	137
55°	81	84	128	291	413	73
65°	38	41	69	110	177	40
75°	18	32	33	30	29	20
85°	8	15	16	16	11	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1228.9	1228.9	1228.9	1228.9	1228.9
2.5°	1216.5	1230.3	1219.3	1220.6	1222.0
5°	1186.3	1204.2	1201.4	1212.4	1223.4
7.5°	1145.1	1165.7	1175.3	1197.3	1212.4
10°	1095.7	1119.0	1138.3	1174.0	1194.6
12.5°	1040.8	1068.2	1095.7	1143.7	1175.3
15°	980.4	1011.9	1049.0	1112.2	1149.2
17.5°	918.6	950.1	998.2	1071.0	1117.7
20°	852.7	887.0	941.9	1022.9	1080.6
22.5°	784.0	821.1	881.5	973.5	1042.1
25°	715.4	753.8	821.1	924.1	999.6
27.5°	646.7	683.8	756.5	871.9	954.3
30°	576.7	615.1	694.8	815.6	910.3
32.5°	509.4	545.1	630.2	762.0	862.3
35°	433.9	475.1	565.7	707.1	815.6
37.5°	369.3	406.4	503.9	652.2	768.9
40°	295.2	336.4	440.7	598.6	720.9
42.5°	226.6	267.7	380.3	545.1	675.5
45°	164.8	204.6	321.3	495.7	630.2
47.5°	124.9	148.3	263.6	447.6	579.4
50°	107.1	114.0	211.4	395.4	524.5
52.5°	94.7	97.5	164.8	343.3	469.6
55°	81.0	83.8	127.7	291.1	413.3
57.5°	68.7	70.0	103.0	241.7	352.9
60°	57.7	59.0	90.6	193.6	291.1
62.5°	48.1	49.4	81.0	149.7	232.0
65°	38.4	41.2	68.7	109.8	177.1
67.5°	31.6	37.1	57.7	76.9	123.6
70°	26.1	35.7	46.7	53.5	75.5
72.5°	22.0	33.0	39.8	38.4	37.1
75°	17.8	31.6	33.0	30.2	28.8
77.5°	15.1	27.5	27.5	24.7	23.3
80°	12.4	22.0	22.0	22.0	19.2
82.5°	11.0	17.8	19.2	19.2	15.1
85°	8.2	15.1	16.5	16.5	11.0
87.5°	5.5	13.7	15.1	13.7	8.2
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	7.98	9.32	8.34	9.63	9.95	17.15	18.49	17.52	18.81	19.12
	3H	9.09	10.28	9.47	10.61	10.98	17.66	18.85	18.04	19.18	19.54
	4H	9.61	10.72	10.01	11.07	11.45	17.68	18.79	18.08	19.14	19.52
	6H	10.04	11.07	10.46	11.44	11.83	17.69	18.71	18.10	19.08	19.47
	8H	10.24	11.20	10.67	11.59	12.00	17.69	18.66	18.12	19.05	19.45
	12H	10.42	11.34	10.85	11.72	12.15	17.69	18.62	18.13	19.00	19.43
4H	2H	9.13	10.24	9.53	10.59	10.97	17.04	18.15	17.44	18.50	18.89
	3H	10.47	11.38	10.88	11.78	12.18	17.63	18.54	18.04	18.94	19.35
	4H	11.20	12.02	11.64	12.43	12.88	17.69	18.50	18.12	18.92	19.36
	6H	11.81	12.52	12.28	12.96	13.43	17.77	18.47	18.23	18.91	19.38
	8H	12.06	12.71	12.52	13.16	13.63	17.80	18.45	18.26	18.90	19.37
	12H	12.29	12.87	12.78	13.35	13.83	17.84	18.42	18.32	18.90	19.37
8H	4H	11.67	12.33	12.14	12.77	13.24	17.65	18.30	18.12	18.75	19.22
	6H	12.52	13.06	13.02	13.56	14.04	17.77	18.31	18.28	18.81	19.29
	8H	12.93	13.41	13.45	13.92	14.42	17.86	18.34	18.38	18.86	19.35
	12H	13.35	13.78	13.86	14.27	14.84	17.98	18.41	18.49	18.90	19.47
12H	4H	11.72	12.31	12.21	12.79	13.26	17.62	18.20	18.11	18.68	19.16
	6H	12.65	13.14	13.17	13.65	14.14	17.76	18.24	18.28	18.76	19.25
	8H	13.17	13.60	13.69	14.10	14.67	17.89	18.32	18.40	18.81	19.38