

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: P1060725

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060725
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

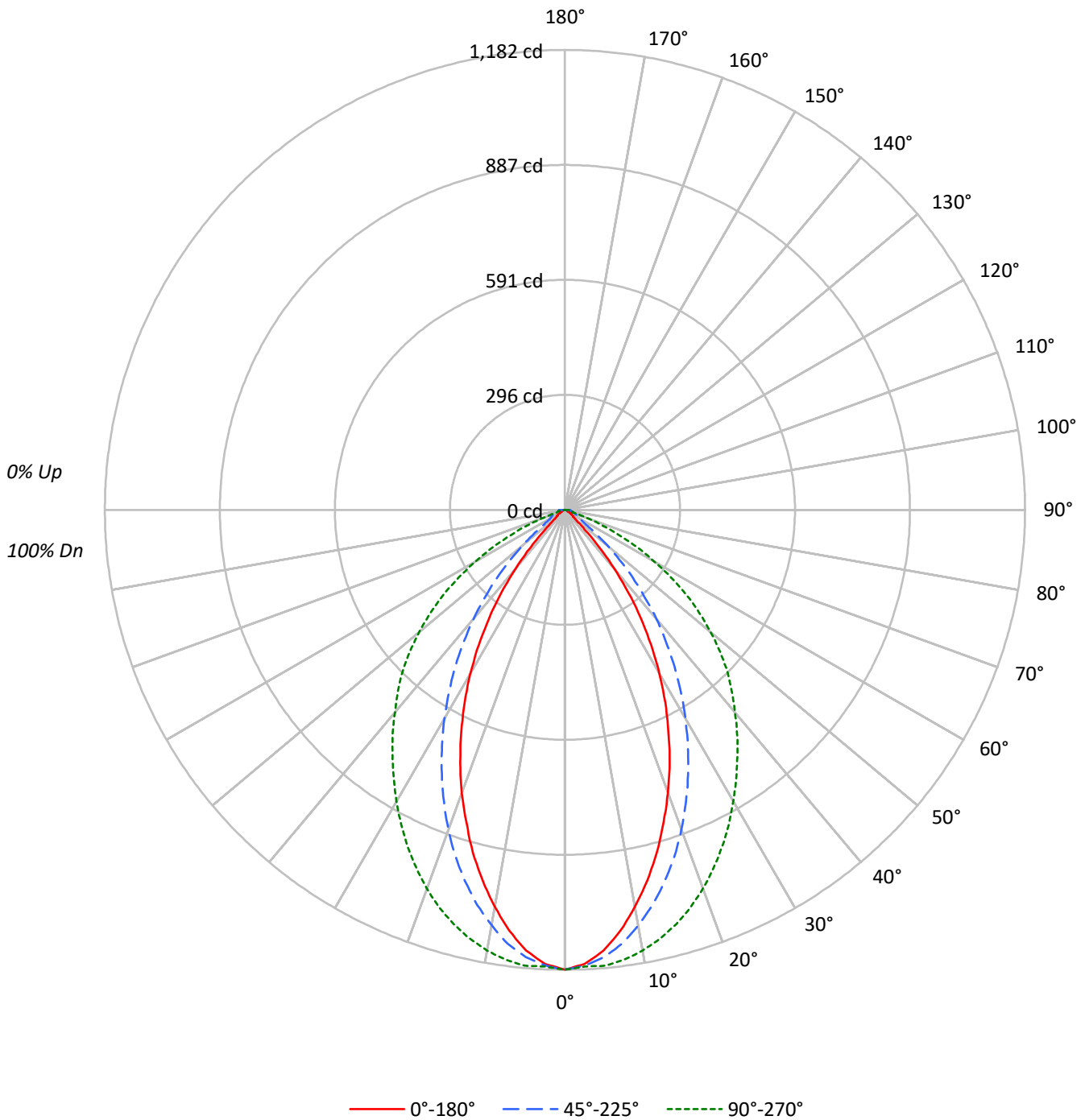
Lumens per Lamp: N/A
Luminaire Lumens: 1489.3 lumens
Efficiency: N/A
Efficacy: 40.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10175	10175	10175
5°	9831	9974	10166
10°	9059	9484	10054
15°	8136	8816	9830
20°	7092	8019	9494
25°	5983	7116	9079
30°	4826	6151	8605
35°	3572	5147	8121
40°	2213	4101	7639
45°	878	2990	7195
50°	390	1877	6540
55°	312	979	5726
60°	215	741	4562
65°	141	736	3136
70°	138	665	1468
75°	183	645	645
80°	273	759	759
85°	543	1512	1097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7195 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.4	7.3
10°-20°	279.8	18.8
20°-30°	353.1	23.7
30°-40°	324.0	21.8
40°-50°	220.6	14.8
50°-60°	120.2	8.1
60°-70°	52.0	3.5
70°-80°	19.0	1.3
80°-90°	12.2	0.8
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°	741.3	49.8
0°-40°	1065.2	71.5
0°-60°	1406.1	94.4
0°-90°	1489.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1489.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1137	1152	1154	1166	1176	105
15°	913	944	989	1060	1103	254
25°	630	674	749	868	956	288
35°	340	390	490	645	772	210
45°	72	121	246	436	591	67
55°	21	22	65	240	381	19
65°	7	10	36	75	154	8
75°	6	18	19	19	19	6
85°	6	12	15	15	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1181.6	1181.6	1181.6	1181.6	1181.6
2.5°	1167.8	1181.6	1171.9	1174.7	1174.7
5°	1137.3	1152.5	1153.9	1166.4	1176.1
7.5°	1091.5	1113.7	1124.8	1149.8	1166.4
10°	1036.0	1062.4	1084.6	1127.6	1149.8
12.5°	976.4	1006.9	1040.2	1097.0	1128.9
15°	912.6	944.5	988.9	1059.6	1102.6
17.5°	841.9	880.7	934.8	1019.4	1072.1
20°	773.9	812.7	875.1	970.8	1036.0
22.5°	703.2	743.4	812.7	919.5	997.2
25°	629.7	674.0	748.9	868.2	955.6
27.5°	557.5	604.7	683.7	814.1	911.2
30°	485.4	532.6	618.6	758.6	865.4
32.5°	411.9	460.5	553.4	700.4	818.3
35°	339.8	389.7	489.6	644.9	772.5
37.5°	266.3	319.0	425.8	590.8	726.7
40°	196.9	249.6	364.8	536.7	679.6
42.5°	131.8	184.5	302.3	484.0	635.2
45°	72.1	120.7	245.5	435.5	590.8
47.5°	38.8	66.6	190.0	388.3	540.9
50°	29.1	36.1	140.1	338.4	488.2
52.5°	25.0	27.7	97.1	285.7	435.5
55°	20.8	22.2	65.2	239.9	381.4
57.5°	16.6	18.0	48.5	194.2	323.2
60°	12.5	15.3	43.0	149.8	264.9
62.5°	9.7	12.5	40.2	109.6	209.4
65°	6.9	9.7	36.1	74.9	153.9
67.5°	6.9	11.1	30.5	48.5	104.0
70°	5.5	15.3	26.4	31.9	58.3
72.5°	5.5	16.6	22.2	22.2	22.2
75°	5.5	18.0	19.4	19.4	19.4
77.5°	5.5	16.6	18.0	16.6	16.6
80°	5.5	15.3	15.3	15.3	15.3
82.5°	5.5	13.9	15.3	15.3	12.5
85°	5.5	12.5	15.3	15.3	11.1
87.5°	4.2	12.5	13.9	13.9	8.3
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	0.00	0.36	0.00	0.67	0.99	16.47	17.75	16.84	18.06	18.38
	3H	0.52	1.65	0.90	1.98	2.34	16.85	17.98	17.23	18.31	18.67
	4H	1.73	2.78	2.13	3.13	3.52	16.82	17.88	17.23	18.23	18.61
	6H	2.91	3.87	3.32	4.24	4.64	16.81	17.78	17.23	18.15	18.54
	8H	3.49	4.41	3.93	4.80	5.21	16.81	17.73	17.24	18.12	18.52
	12H	4.16	5.04	4.59	5.42	5.85	16.83	17.70	17.26	18.08	18.51
4H	2H	2.71	3.77	3.12	4.12	4.50	16.28	17.33	16.68	17.68	18.07
	3H	4.30	5.16	4.71	5.56	5.97	16.70	17.56	17.11	17.96	18.37
	4H	5.59	6.35	6.02	6.77	7.22	16.70	17.47	17.13	17.89	18.33
	6H	6.71	7.37	7.18	7.82	8.29	16.74	17.40	17.20	17.85	18.32
	8H	7.22	7.84	7.69	8.29	8.76	16.77	17.38	17.24	17.83	18.30
	12H	7.77	8.31	8.26	8.80	9.27	16.83	17.38	17.32	17.86	18.34
8H	4H	6.67	7.29	7.14	7.74	8.21	16.61	17.23	17.08	17.67	18.15
	6H	8.22	8.72	8.72	9.22	9.70	16.69	17.19	17.19	17.69	18.17
	8H	9.03	9.48	9.55	10.00	10.49	16.77	17.23	17.29	17.74	18.23
	12H	9.86	10.26	10.37	10.75	11.33	16.94	17.34	17.46	17.84	18.41
12H	4H	6.86	7.41	7.35	7.89	8.37	16.57	17.12	17.06	17.60	18.08
	6H	8.58	9.03	9.10	9.55	10.04	16.66	17.12	17.18	17.63	18.12
	8H	9.59	9.99	10.10	10.49	11.06	16.80	17.20	17.31	17.70	18.27