

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: P1060962

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060962
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-H795D835-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

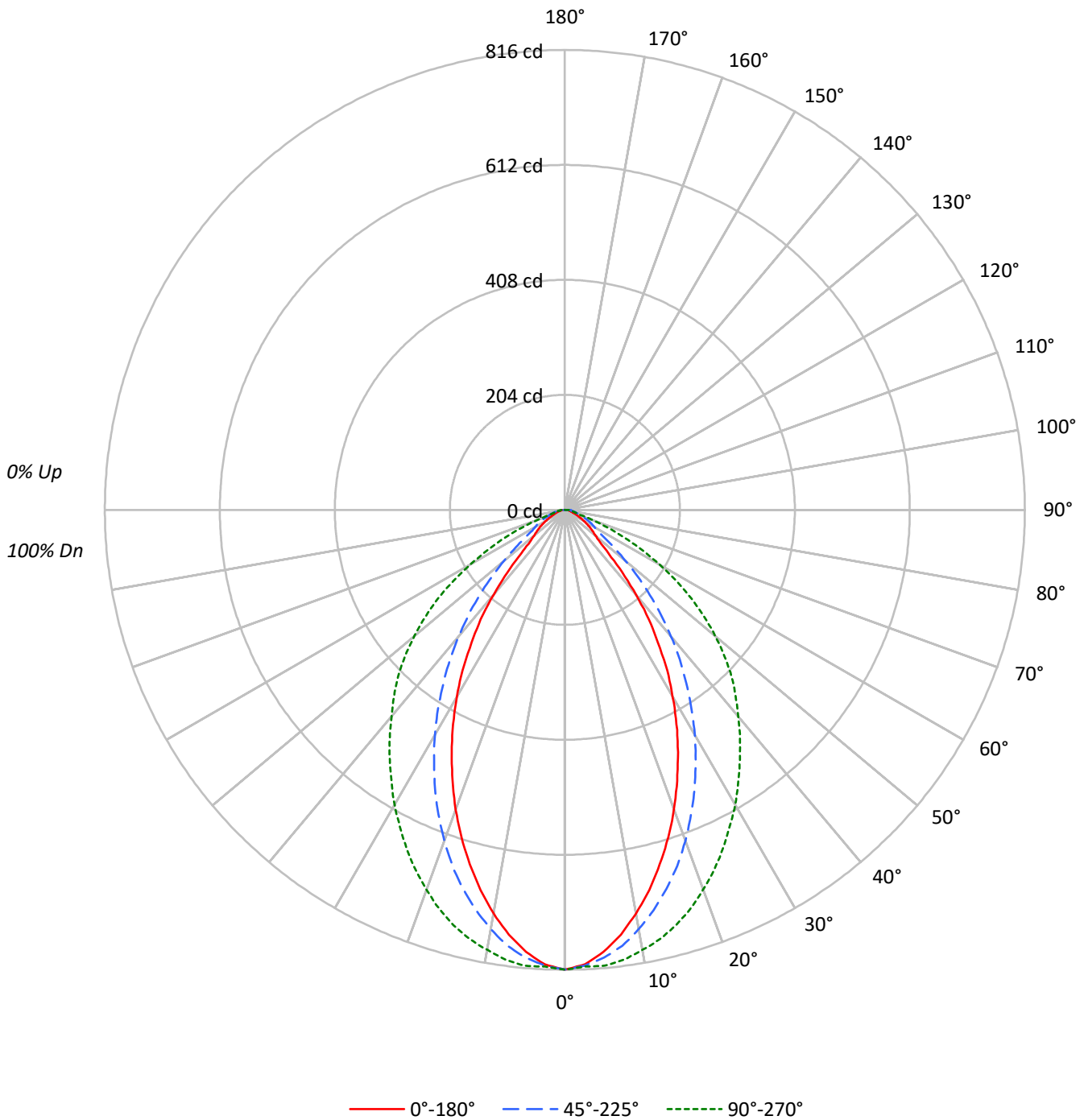
Lumens per Lamp: N/A
Luminaire Lumens: 1154.5 lumens
Efficiency: N/A
Efficacy: 49.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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									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	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													100															
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89													89															
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79													79															
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70													70															
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63													63															
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57													57															
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51													51															
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47													47															
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43													43															
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39													39															
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36													36															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7024	7024	7024
5°	6806	6894	7020
10°	6359	6606	6933
15°	5801	6207	6800
20°	5187	5729	6573
25°	4511	5178	6304
30°	3806	4586	6009
35°	3028	3947	5691
40°	2203	3289	5379
45°	1332	2598	5094
50°	952	1881	4665
55°	808	1273	4118
60°	660	1037	3327
65°	520	929	2396
70°	436	780	1261
75°	393	729	635
80°	407	724	635
85°	543	1077	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5094 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	6.5
10°-20°	196.8	17.0
20°-30°	255.2	22.1
30°-40°	245.7	21.3
40°-50°	182.8	15.8
50°-60°	112.4	9.7
60°-70°	55.2	4.8
70°-80°	21.5	1.9
80°-90°	9.8	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°	527.1	45.7
0°-40°	772.8	66.9
0°-60°	1068.0	92.5
0°-90°	1154.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1154.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	787	799	798	805	812	73
15°	651	672	696	738	763	182
25°	475	500	545	613	664	217
35°	288	315	376	469	541	180
45°	109	136	213	329	418	91
55°	54	56	85	193	274	48
65°	26	27	46	73	118	26
75°	12	21	22	20	19	13
85°	6	10	11	11	7	6
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.7	815.7	815.7	815.7	815.7
2.5°	807.5	816.6	809.3	810.2	811.1
5°	787.4	799.3	797.5	804.8	812.1
7.5°	760.1	773.8	780.2	794.7	804.8
10°	727.3	742.8	755.5	779.2	792.9
12.5°	690.8	709.1	727.3	759.2	780.2
15°	650.7	671.7	696.3	738.2	762.8
17.5°	609.7	630.7	662.6	710.9	741.9
20°	566.0	588.8	625.2	679.0	717.3
22.5°	520.4	545.0	585.1	646.2	691.7
25°	474.8	500.4	545.0	613.4	663.5
27.5°	429.3	453.9	502.2	578.7	633.4
30°	382.8	408.3	461.2	541.4	604.3
32.5°	338.1	361.8	418.3	505.8	572.4
35°	288.0	315.3	375.5	469.4	541.4
37.5°	245.2	269.8	334.5	432.9	510.4
40°	196.0	223.3	292.6	397.4	478.5
42.5°	150.4	177.7	252.5	361.8	448.4
45°	109.4	135.8	213.3	329.0	418.3
47.5°	82.9	98.4	175.0	297.1	384.6
50°	71.1	75.6	140.4	262.5	348.2
52.5°	62.9	64.7	109.4	227.8	311.7
55°	53.8	55.6	84.8	193.2	274.3
57.5°	45.6	46.5	68.4	160.4	234.2
60°	38.3	39.2	60.2	128.5	193.2
62.5°	31.9	32.8	53.8	99.3	154.0
65°	25.5	27.3	45.6	72.9	117.6
67.5°	21.0	24.6	38.3	51.0	82.0
70°	17.3	23.7	31.0	35.5	50.1
72.5°	14.6	21.9	26.4	25.5	24.6
75°	11.8	21.0	21.9	20.1	19.1
77.5°	10.0	18.2	18.2	16.4	15.5
80°	8.2	14.6	14.6	14.6	12.8
82.5°	7.3	11.8	12.8	12.8	10.0
85°	5.5	10.0	10.9	10.9	7.3
87.5°	3.6	9.1	10.0	9.1	5.5
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	6.56	7.90	6.93	8.21	8.53	15.72	17.07	16.09	17.38	17.69
	3H	7.67	8.86	8.05	9.19	9.56	16.23	17.42	16.61	17.75	18.12
	4H	8.19	9.30	8.59	9.65	10.03	16.25	17.36	16.65	17.71	18.09
	6H	8.62	9.64	9.03	10.01	10.40	16.26	17.28	16.68	17.65	18.05
	8H	8.81	9.78	9.24	10.17	10.57	16.27	17.23	16.70	17.62	18.03
	12H	8.99	9.92	9.43	10.30	10.73	16.27	17.19	16.70	17.58	18.01
4H	2H	7.71	8.82	8.11	9.17	9.55	15.62	16.73	16.02	17.08	17.46
	3H	9.05	9.96	9.46	10.36	10.76	16.21	17.11	16.62	17.52	17.92
	4H	9.78	10.59	10.22	11.01	11.46	16.26	17.08	16.70	17.50	17.94
	6H	10.39	11.09	10.85	11.54	12.00	16.34	17.04	16.80	17.49	17.95
	8H	10.63	11.29	11.10	11.73	12.20	16.37	17.03	16.84	17.47	17.94
	12H	10.87	11.45	11.35	11.93	12.40	16.41	16.99	16.90	17.48	17.95
8H	4H	10.25	10.90	10.72	11.35	11.82	16.22	16.88	16.69	17.33	17.80
	6H	11.10	11.63	11.60	12.13	12.61	16.35	16.89	16.85	17.38	17.86
	8H	11.50	11.98	12.02	12.50	12.99	16.43	16.92	16.96	17.43	17.92
	12H	11.92	12.35	12.44	12.85	13.42	16.55	16.98	17.07	17.48	18.05
12H	4H	10.30	10.88	10.79	11.36	11.84	16.20	16.78	16.68	17.26	17.73
	6H	11.23	11.71	11.75	12.23	12.72	16.33	16.82	16.85	17.33	17.82
	8H	11.75	12.18	12.26	12.67	13.24	16.47	16.89	16.98	17.39	17.96