

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: P1060978

Luminaire Tested: S124RDR-H795D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK 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

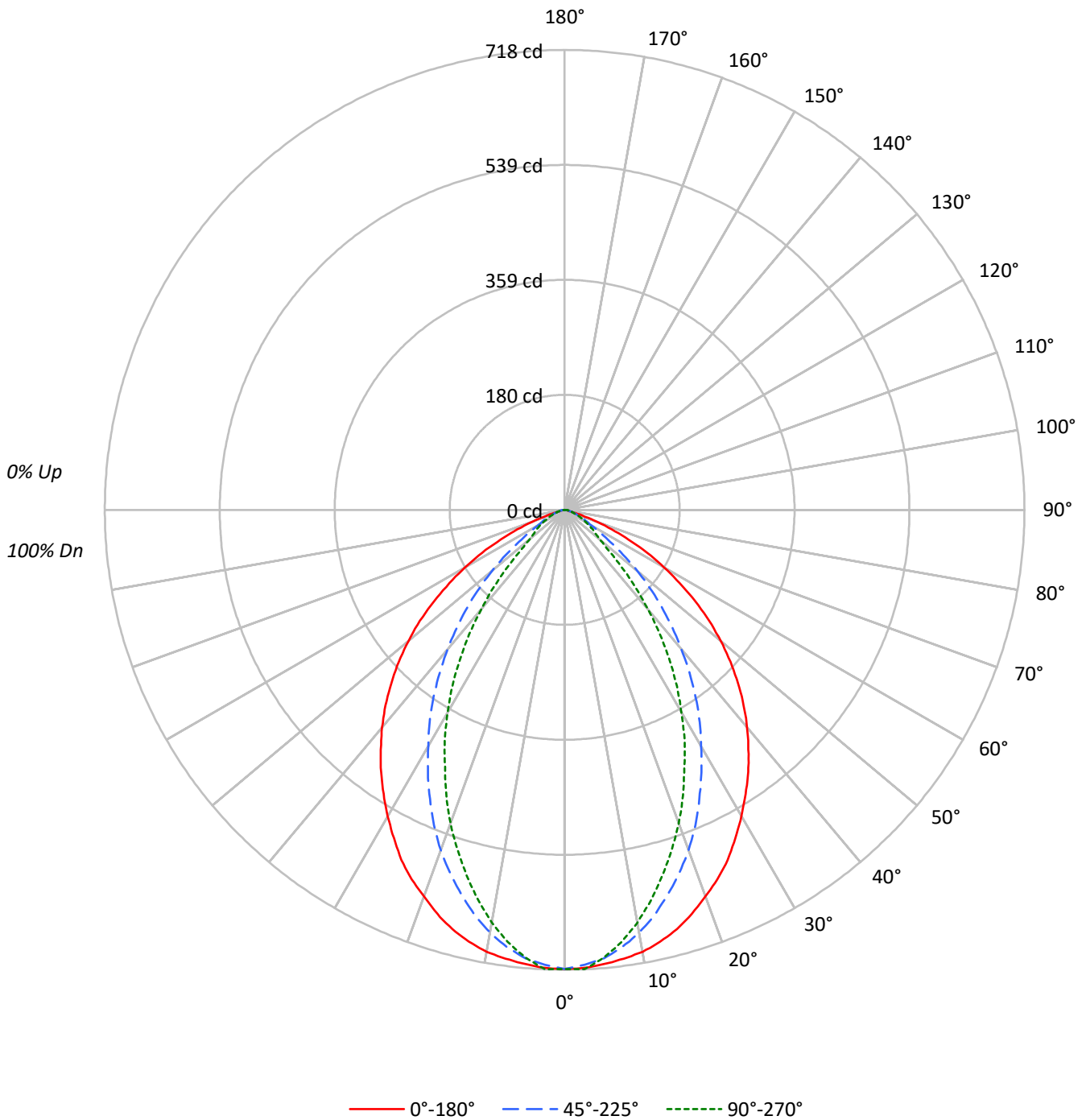
Lumens per Lamp: N/A
Luminaire Lumens: 1056.9 lumens
Efficiency: N/A
Efficacy: 45.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	
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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57				
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43				
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6172	6172	6172
5°	6153	6074	6066
10°	6127	5862	5720
15°	6040	5544	5265
20°	5884	5181	4774
25°	5727	4730	4201
30°	5492	4237	3624
35°	5254	3747	2993
40°	4982	3189	2270
45°	4661	2606	1525
50°	4260	1975	947
55°	3744	1303	803
60°	3095	799	661
65°	2243	617	536
70°	1221	458	408
75°	269	336	369
80°	198	248	302
85°	198	198	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4661 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	6.3
10°-20°	176.4	16.7
20°-30°	233.7	22.1
30°-40°	231.9	21.9
40°-50°	178.5	16.9
50°-60°	106.4	10.1
60°-70°	48.4	4.6
70°-80°	12.5	1.2
80°-90°	2.8	0.3
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°	476.5	45.1
0°-40°	708.4	67.0
0°-60°	993.3	94.0
0°-90°	1056.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1056.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	712	713	703	703	702	68
15°	678	660	622	601	591	191
25°	603	559	498	456	442	277
35°	500	437	356	302	285	312
45°	383	308	214	149	125	295
55°	249	178	87	54	54	222
65°	110	66	30	26	26	111
75°	8	10	10	11	11	17
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	716.8	716.8	716.8	716.8	716.8
2.5°	715.8	716.8	710.8	715.8	717.9
5°	711.8	712.8	702.7	702.7	701.7
7.5°	706.8	704.7	688.6	682.5	680.5
10°	700.7	693.6	670.4	658.3	654.2
12.5°	690.6	679.5	648.2	631.0	624.0
15°	677.5	660.3	621.9	600.7	590.6
17.5°	661.3	640.1	594.7	567.4	556.3
20°	642.1	613.9	565.4	531.1	521.0
22.5°	624.0	588.6	533.1	493.7	482.6
25°	602.8	559.3	497.8	456.4	442.2
27.5°	577.5	531.1	462.4	420.0	405.9
30°	552.3	500.8	426.1	381.6	364.5
32.5°	526.0	469.5	392.8	342.3	326.1
35°	499.8	437.2	356.4	301.9	284.7
37.5°	471.5	404.9	320.1	263.5	244.3
40°	443.2	373.6	283.7	226.2	201.9
42.5°	414.0	341.3	248.4	187.8	163.6
45°	382.7	307.9	214.0	149.4	125.2
47.5°	351.4	276.6	179.7	112.1	89.9
50°	318.0	243.3	147.4	81.8	70.7
52.5°	284.7	211.0	115.1	63.6	60.6
55°	249.4	177.7	86.8	54.5	53.5
57.5°	213.0	147.4	62.6	47.5	45.4
60°	179.7	119.1	46.4	40.4	38.4
62.5°	145.4	89.9	38.4	33.3	31.3
65°	110.1	65.6	30.3	26.3	26.3
67.5°	79.8	44.4	24.2	21.2	20.2
70°	48.5	27.3	18.2	17.2	16.2
72.5°	24.2	16.2	14.1	13.1	13.1
75°	8.1	10.1	10.1	11.1	11.1
77.5°	6.1	7.1	7.1	8.1	8.1
80°	4.0	5.0	5.0	6.1	6.1
82.5°	3.0	3.0	4.0	4.0	5.0
85°	2.0	2.0	2.0	3.0	3.0
87.5°	1.0	1.0	1.0	2.0	2.0
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	15.44	16.78	15.81	17.09	17.40	7.00	8.33	7.36	8.64	8.96
	3H	15.95	17.13	16.33	17.46	17.83	7.81	8.99	8.19	9.32	9.69
	4H	15.92	17.02	16.32	17.37	17.75	8.10	9.19	8.50	9.54	9.93
	6H	15.85	16.86	16.27	17.23	17.63	8.27	9.28	8.68	9.65	10.04
	8H	15.82	16.77	16.25	17.16	17.56	8.33	9.29	8.76	9.68	10.08
	12H	15.78	16.69	16.21	17.07	17.50	8.38	9.29	8.81	9.67	10.10
4H	2H	15.28	16.38	15.69	16.73	17.12	7.44	8.54	7.84	8.89	9.27
	3H	15.84	16.73	16.25	17.14	17.54	8.40	9.30	8.82	9.70	10.10
	4H	15.81	16.60	16.24	17.02	17.47	8.76	9.56	9.20	9.98	10.42
	6H	15.76	16.44	16.22	16.89	17.35	9.02	9.70	9.48	10.15	10.62
	8H	15.71	16.35	16.18	16.80	17.27	9.11	9.75	9.58	10.19	10.66
	12H	15.67	16.23	16.16	16.72	17.19	9.18	9.74	9.67	10.23	10.70
8H	4H	15.70	16.34	16.17	16.78	17.26	8.85	9.49	9.32	9.94	10.41
	6H	15.64	16.16	16.14	16.65	17.14	9.17	9.69	9.67	10.19	10.67
	8H	15.59	16.06	16.11	16.57	17.06	9.30	9.76	9.82	10.28	10.77
	12H	15.56	15.97	16.07	16.47	17.04	9.43	9.84	9.94	10.34	10.91
12H	4H	15.66	16.22	16.14	16.70	17.18	8.83	9.39	9.31	9.87	10.35
	6H	15.58	16.05	16.10	16.56	17.06	9.15	9.61	9.67	10.13	10.62
	8H	15.55	15.97	16.07	16.46	17.03	9.31	9.73	9.83	10.22	10.79