

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: P1060716

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060716
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-H1195D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

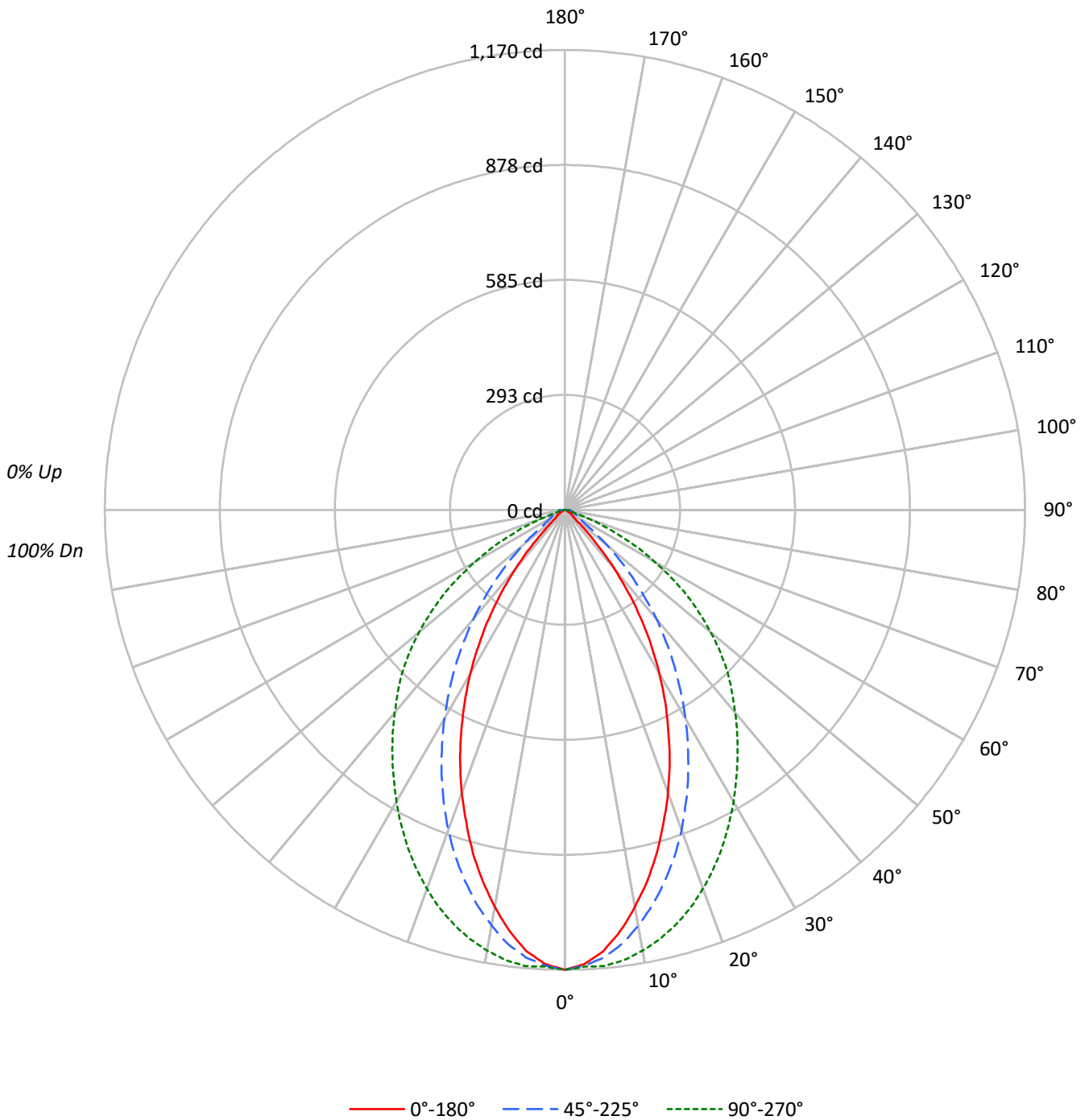
Lumens per Lamp: N/A
Luminaire Lumens: 1474.7 lumens
Efficiency: N/A
Efficacy: 40.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	10076	10076	10076
5°	9735	9877	10067
10°	8970	9391	9955
15°	8056	8729	9733
20°	7022	7941	9401
25°	5924	7046	8990
30°	4780	6090	8521
35°	3537	5096	8042
40°	2192	4060	7564
45°	870	2960	7125
50°	386	1858	6476
55°	309	968	5670
60°	214	734	4517
65°	141	727	3105
70°	138	657	1453
75°	183	639	639
80°	273	749	749
85°	543	1492	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7125 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.3	7.3
10°-20°	277.0	18.8
20°-30°	349.7	23.7
30°-40°	320.8	21.8
40°-50°	218.5	14.8
50°-60°	119.0	8.1
60°-70°	51.5	3.5
70°-80°	18.8	1.3
80°-90°	12.1	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°	734.0	49.8
0°-40°	1054.8	71.5
0°-60°	1392.3	94.4
0°-90°	1474.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1474.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1126	1141	1143	1155	1165	104
15°	904	935	979	1049	1092	251
25°	624	668	742	860	946	285
35°	336	386	485	639	765	208
45°	71	120	243	431	585	66
55°	21	22	64	238	378	18
65°	7	10	36	74	152	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°	1170.1	1170.1	1170.1	1170.1	1170.1
2.5°	1156.4	1170.1	1160.5	1163.2	1163.2
5°	1126.2	1141.3	1142.6	1155.0	1164.6
7.5°	1080.8	1102.8	1113.8	1138.5	1155.0
10°	1025.9	1052.0	1074.0	1116.5	1138.5
12.5°	966.8	997.1	1030.0	1086.3	1117.9
15°	903.7	935.3	979.2	1049.3	1091.8
17.5°	833.6	872.1	925.6	1009.4	1061.6
20°	766.3	804.8	866.6	961.4	1025.9
22.5°	696.3	736.1	804.8	910.5	987.4
25°	623.5	667.5	741.6	859.7	946.2
27.5°	552.1	598.8	677.1	806.2	902.3
30°	480.7	527.4	612.5	751.2	857.0
32.5°	407.9	456.0	548.0	693.5	810.3
35°	336.5	385.9	484.8	638.6	765.0
37.5°	263.7	315.9	421.6	585.1	719.6
40°	195.0	247.2	361.2	531.5	672.9
42.5°	130.5	182.7	299.4	479.3	629.0
45°	71.4	119.5	243.1	431.2	585.1
47.5°	38.5	65.9	188.2	384.5	535.6
50°	28.8	35.7	138.7	335.1	483.4
52.5°	24.7	27.5	96.1	282.9	431.2
55°	20.6	22.0	64.5	237.6	377.7
57.5°	16.5	17.9	48.1	192.3	320.0
60°	12.4	15.1	42.6	148.3	262.3
62.5°	9.6	12.4	39.8	108.5	207.4
65°	6.9	9.6	35.7	74.2	152.4
67.5°	6.9	11.0	30.2	48.1	103.0
70°	5.5	15.1	26.1	31.6	57.7
72.5°	5.5	16.5	22.0	22.0	22.0
75°	5.5	17.9	19.2	19.2	19.2
77.5°	5.5	16.5	17.9	16.5	16.5
80°	5.5	15.1	15.1	15.1	15.1
82.5°	5.5	13.7	15.1	15.1	12.4
85°	5.5	12.4	15.1	15.1	11.0
87.5°	4.1	12.4	13.7	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	0.00	0.35	0.00	0.66	0.98	16.44	17.71	16.80	18.03	18.34
	3H	0.50	1.63	0.88	1.97	2.33	16.81	17.94	17.19	18.27	18.64
	4H	1.72	2.78	2.13	3.13	3.51	16.79	17.84	17.19	18.19	18.58
	6H	2.90	3.87	3.32	4.24	4.63	16.78	17.74	17.19	18.11	18.51
	8H	3.49	4.41	3.92	4.80	5.20	16.78	17.69	17.21	18.08	18.49
	12H	4.16	5.04	4.60	5.42	5.85	16.79	17.67	17.22	18.05	18.48
4H	2H	2.68	3.74	3.09	4.09	4.47	16.25	17.30	16.65	17.65	18.03
	3H	4.27	5.13	4.68	5.53	5.94	16.67	17.52	17.08	17.93	18.33
	4H	5.57	6.33	6.00	6.75	7.20	16.66	17.43	17.10	17.85	18.30
	6H	6.69	7.35	7.16	7.80	8.27	16.70	17.37	17.17	17.81	18.28
	8H	7.20	7.82	7.67	8.27	8.74	16.73	17.35	17.20	17.80	18.27
	12H	7.75	8.30	8.24	8.78	9.26	16.80	17.34	17.28	17.83	18.30
8H	4H	6.65	7.27	7.12	7.72	8.19	16.57	17.19	17.04	17.64	18.11
	6H	8.19	8.69	8.69	9.19	9.67	16.65	17.16	17.16	17.66	18.14
	8H	9.00	9.45	9.52	9.97	10.46	16.74	17.19	17.26	17.71	18.20
	12H	9.83	10.23	10.34	10.73	11.30	16.91	17.31	17.42	17.80	18.38
12H	4H	6.84	7.38	7.33	7.87	8.34	16.54	17.08	17.02	17.57	18.04
	6H	8.55	9.00	9.07	9.52	10.01	16.63	17.08	17.15	17.60	18.09
	8H	9.55	9.96	10.07	10.45	11.02	16.76	17.17	17.28	17.66	18.23