

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060230

Luminaire Tested: S124RDRP-S1020D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060230
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: S124RDRP-S1020D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

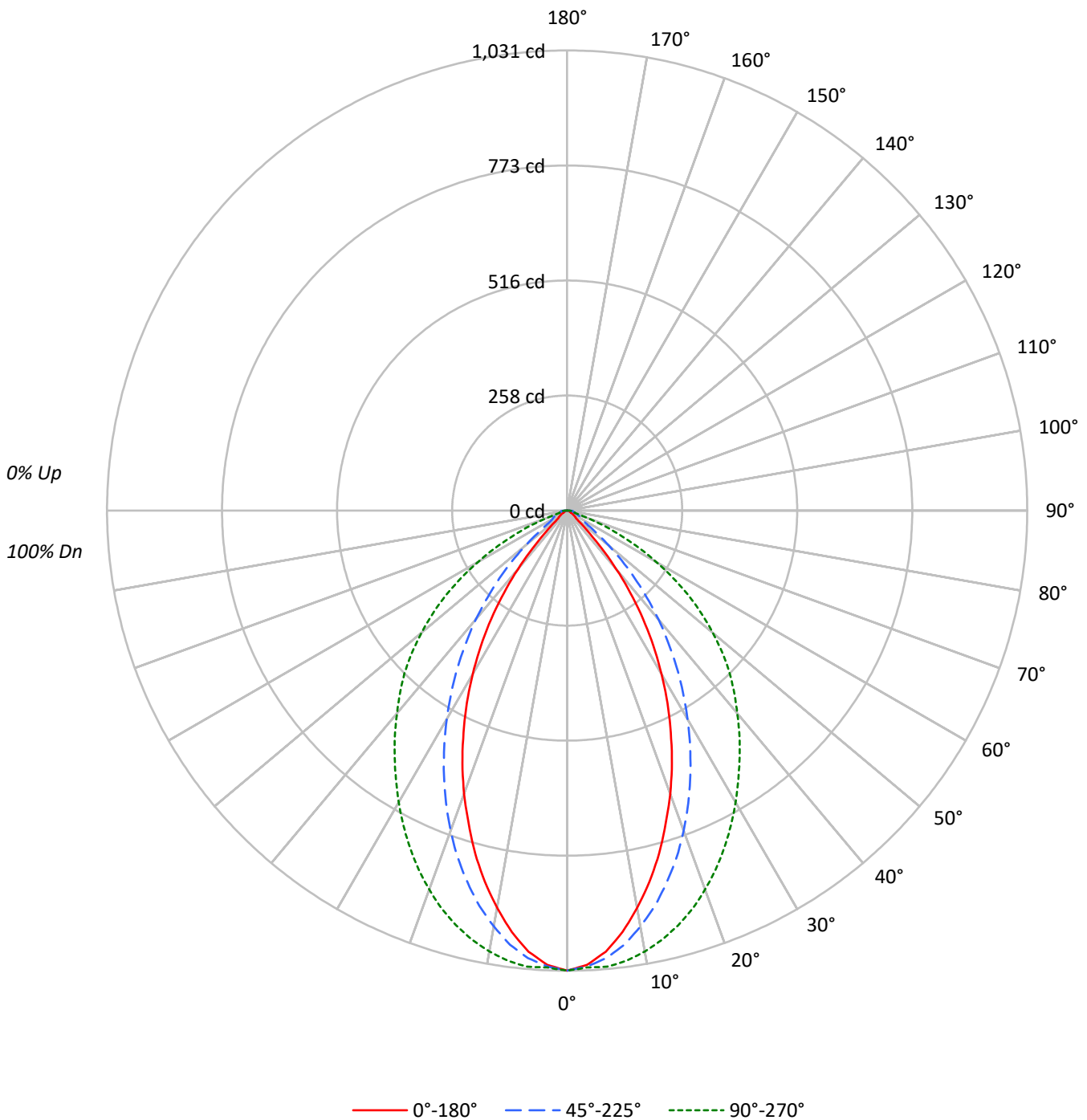
Lumens per Lamp: N/A
Luminaire Lumens: 1299.0 lumens
Efficiency: N/A
Efficacy: 37.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8875	8875	8875
5°	8575	8700	8868
10°	7902	8272	8769
15°	7096	7689	8573
20°	6186	6995	8281
25°	5218	6207	7919
30°	4210	5364	7506
35°	3116	4489	7083
40°	1931	3577	6664
45°	766	2607	6275
50°	340	1637	5704
55°	272	854	4995
60°	188	646	3980
65°	122	642	2736
70°	121	579	1279
75°	160	562	562
80°	238	660	660
85°	474	1314	958

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6275 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	7.3
10°-20°	244.0	18.8
20°-30°	308.0	23.7
30°-40°	282.6	21.8
40°-50°	192.5	14.8
50°-60°	104.8	8.1
60°-70°	45.4	3.5
70°-80°	16.5	1.3
80°-90°	10.7	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°	646.6	49.8
0°-40°	929.1	71.5
0°-60°	1226.5	94.4
0°-90°	1299.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1299.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	992	1005	1006	1017	1026	92
15°	796	824	862	924	962	221
25°	549	588	653	757	834	251
35°	296	340	427	562	674	183
45°	63	105	214	380	515	58
55°	18	19	57	209	333	16
65°	6	8	32	65	134	7
75°	5	16	17	17	17	5
85°	5	11	13	13	10	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1030.7	1030.7	1030.7	1030.7	1030.7
2.5°	1018.6	1030.7	1022.2	1024.6	1024.6
5°	992.0	1005.3	1006.5	1017.4	1025.9
7.5°	952.1	971.4	981.1	1002.9	1017.4
10°	903.7	926.7	946.0	983.5	1002.9
12.5°	851.7	878.3	907.3	956.9	984.7
15°	796.0	823.8	862.5	924.2	961.7
17.5°	734.3	768.2	815.4	889.2	935.1
20°	675.0	708.9	763.3	846.8	903.7
22.5°	613.3	648.4	708.9	802.1	869.8
25°	549.2	587.9	653.3	757.3	833.5
27.5°	486.3	527.4	596.4	710.1	794.8
30°	423.4	464.5	539.5	661.7	754.9
32.5°	359.3	401.6	482.7	610.9	713.7
35°	296.4	339.9	427.0	562.5	673.8
37.5°	232.3	278.2	371.4	515.3	633.9
40°	171.8	217.8	318.2	468.2	592.8
42.5°	114.9	160.9	263.7	422.2	554.1
45°	62.9	105.2	214.1	379.9	515.3
47.5°	33.9	58.1	165.7	338.7	471.8
50°	25.4	31.5	122.2	295.2	425.8
52.5°	21.8	24.2	84.7	249.2	379.9
55°	18.1	19.4	56.9	209.3	332.7
57.5°	14.5	15.7	42.3	169.4	281.9
60°	10.9	13.3	37.5	130.7	231.1
62.5°	8.5	10.9	35.1	95.6	182.7
65°	6.0	8.5	31.5	65.3	134.3
67.5°	6.0	9.7	26.6	42.3	90.7
70°	4.8	13.3	23.0	27.8	50.8
72.5°	4.8	14.5	19.4	19.4	19.4
75°	4.8	15.7	16.9	16.9	16.9
77.5°	4.8	14.5	15.7	14.5	14.5
80°	4.8	13.3	13.3	13.3	13.3
82.5°	4.8	12.1	13.3	13.3	10.9
85°	4.8	10.9	13.3	13.3	9.7
87.5°	3.6	10.9	12.1	12.1	7.3
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	0.00	0.00	0.20	0.51	16.00	17.27	16.36	17.59	17.90
	3H	0.04	1.17	0.42	1.50	1.86	16.37	17.50	16.75	17.83	18.20
	4H	1.25	2.31	1.66	2.66	3.04	16.35	17.40	16.75	17.75	18.14
	6H	2.43	3.40	2.85	3.77	4.16	16.34	17.30	16.75	17.67	18.07
	8H	3.02	3.93	3.45	4.32	4.73	16.34	17.25	16.77	17.64	18.05
	12H	3.69	4.56	4.12	4.94	5.37	16.35	17.22	16.78	17.61	18.04
4H	2H	2.24	3.29	2.65	3.65	4.03	15.81	16.86	16.21	17.21	17.59
	3H	3.82	4.68	4.24	5.09	5.49	16.23	17.08	16.64	17.49	17.89
	4H	5.11	5.88	5.55	6.30	6.74	16.22	16.99	16.66	17.41	17.85
	6H	6.24	6.90	6.70	7.35	7.81	16.26	16.93	16.73	17.37	17.84
	8H	6.74	7.36	7.21	7.81	8.28	16.29	16.91	16.76	17.36	17.83
	12H	7.29	7.84	7.78	8.32	8.80	16.36	16.90	16.84	17.39	17.86
8H	4H	6.20	6.81	6.67	7.26	7.73	16.13	16.75	16.60	17.20	17.67
	6H	7.74	8.24	8.24	8.74	9.22	16.21	16.72	16.71	17.21	17.70
	8H	8.55	9.00	9.07	9.52	10.01	16.30	16.75	16.82	17.27	17.76
	12H	9.38	9.78	9.89	10.27	10.85	16.47	16.87	16.98	17.36	17.93
12H	4H	6.39	6.93	6.87	7.42	7.89	16.10	16.64	16.58	17.13	17.60
	6H	8.09	8.55	8.62	9.06	9.56	16.18	16.64	16.71	17.16	17.65
	8H	9.11	9.51	9.62	10.00	10.57	16.32	16.72	16.84	17.22	17.79