

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: P1056053

Luminaire Tested: S124R3DR-S575D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D935-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

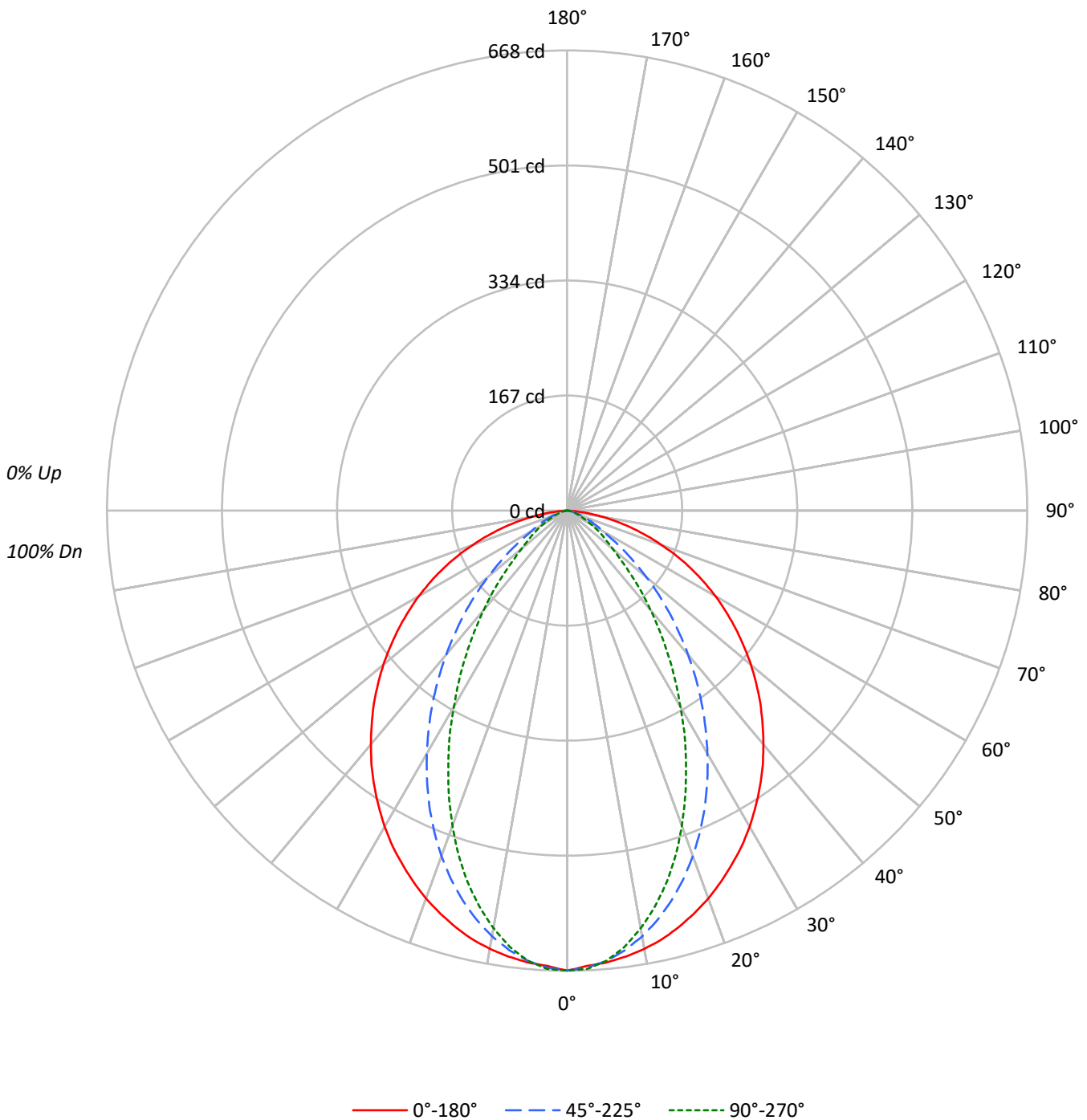
Lumens per Lamp: N/A
Luminaire Lumens: 1079.8 lumens
Efficiency: N/A
Efficacy: 56.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89																												
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78																												
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68																												
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60																												
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54																												
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48																												
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44																												
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40																												
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37																												
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5904	5904	5904
5°	5843	5822	5822
10°	5800	5633	5526
15°	5731	5361	5110
20°	5640	5020	4580
25°	5525	4616	3979
30°	5408	4158	3352
35°	5268	3671	2758
40°	5116	3151	2174
45°	4960	2620	1624
50°	4789	2060	1188
55°	4600	1524	950
60°	4398	1056	725
65°	4136	820	533
70°	3746	579	419
75°	3273	403	318
80°	2627	316	285
85°	1451	254	254

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4960 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	5.7
10°-20°	165.5	15.3
20°-30°	220.7	20.4
30°-40°	222.3	20.6
40°-50°	182.3	16.9
50°-60°	124.6	11.5
60°-70°	69.6	6.4
70°-80°	27.6	2.6
80°-90°	5.2	0.5
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°	448.2	41.5
0°-40°	670.4	62.1
0°-60°	977.3	90.5
0°-90°	1079.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1079.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	668	668	668	668	668	
5°	658	666	656	653	656	62
15°	626	619	586	565	558	176
25°	566	538	473	425	408	261
35°	488	436	340	275	256	305
45°	397	324	210	147	130	306
55°	298	210	99	66	62	267
65°	198	100	39	28	26	195
75°	96	26	12	10	9	103
85°	14	2	2	2	2	20
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	667.8	667.8	667.8	667.8	667.8
2.5°	661.6	669.6	664.0	664.7	665.9
5°	658.4	665.9	656.0	652.9	656.0
7.5°	652.9	658.4	643.5	637.3	638.6
10°	646.0	647.9	627.4	616.8	615.5
12.5°	637.3	634.8	608.1	592.5	588.8
15°	626.1	619.3	585.7	565.2	558.3
17.5°	613.1	601.2	560.8	534.1	524.1
20°	599.4	582.0	533.5	499.3	486.8
22.5°	583.2	561.5	504.3	462.6	448.3
25°	566.4	538.4	473.2	425.3	407.9
27.5°	549.0	514.8	440.8	387.4	369.9
30°	529.7	489.3	407.3	349.4	328.3
32.5°	509.2	463.2	373.7	312.1	292.2
35°	488.1	436.5	340.1	275.4	255.5
37.5°	466.3	409.1	306.5	240.6	220.7
40°	443.3	381.1	273.0	207.7	188.4
42.5°	419.7	352.5	240.6	176.6	158.5
45°	396.7	323.9	209.5	147.4	129.9
47.5°	372.4	295.3	179.1	120.0	105.1
50°	348.2	266.7	149.8	96.4	86.4
52.5°	323.3	238.1	123.1	79.0	72.1
55°	298.4	209.5	98.9	65.9	61.6
57.5°	273.6	180.9	76.5	56.0	51.0
60°	248.7	153.0	59.7	45.4	41.0
62.5°	223.2	125.0	49.1	36.1	32.3
65°	197.7	99.5	39.2	28.0	25.5
67.5°	172.2	75.9	29.8	21.8	19.9
70°	144.9	54.1	22.4	16.8	16.2
72.5°	121.2	36.7	16.2	13.1	12.4
75°	95.8	26.1	11.8	9.9	9.3
77.5°	74.0	16.8	8.7	8.1	7.5
80°	51.6	9.3	6.2	5.6	5.6
82.5°	31.7	5.0	4.4	3.7	3.7
85°	14.3	2.5	2.5	2.5	2.5
87.5°	2.5	1.2	1.2	1.2	1.2
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	16.89	18.30	17.26	18.61	18.93	7.99	9.39	8.35	9.71	10.02
	3H	18.48	19.73	18.86	20.06	20.42	8.58	9.83	8.96	10.16	10.52
	4H	19.07	20.24	19.48	20.59	20.97	8.74	9.90	9.14	10.25	10.64
	6H	19.51	20.58	19.92	20.95	21.34	8.84	9.92	9.26	10.29	10.68
	8H	19.62	20.64	20.05	21.03	21.43	8.86	9.88	9.29	10.27	10.68
	12H	19.66	20.64	20.09	21.02	21.45	8.87	9.85	9.30	10.23	10.66
4H	2H	16.75	17.92	17.15	18.27	18.65	8.57	9.74	8.97	10.09	10.47
	3H	18.39	19.35	18.81	19.76	20.16	9.28	10.24	9.70	10.65	11.05
	4H	19.00	19.86	19.43	20.28	20.72	9.49	10.34	9.92	10.76	11.20
	6H	19.49	20.23	19.95	20.68	21.14	9.65	10.40	10.11	10.84	11.30
	8H	19.64	20.33	20.10	20.77	21.24	9.69	10.38	10.15	10.82	11.29
	12H	19.71	20.32	20.19	20.80	21.28	9.71	10.32	10.20	10.81	11.28
8H	4H	18.89	19.59	19.36	20.03	20.50	9.76	10.45	10.22	10.89	11.36
	6H	19.38	19.94	19.88	20.44	20.92	9.96	10.53	10.46	11.02	11.50
	8H	19.52	20.03	20.04	20.54	21.03	10.02	10.53	10.54	11.04	11.53
	12H	19.61	20.06	20.12	20.55	21.12	10.08	10.53	10.59	11.02	11.59
12H	4H	18.85	19.47	19.34	19.95	20.42	9.78	10.40	10.27	10.88	11.35
	6H	19.32	19.83	19.84	20.34	20.83	9.99	10.50	10.51	11.01	11.50
	8H	19.48	19.93	20.00	20.43	21.00	10.08	10.53	10.60	11.02	11.59