

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: P1060281

Luminaire Tested: S124RDRP-S1020D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060281
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D935-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

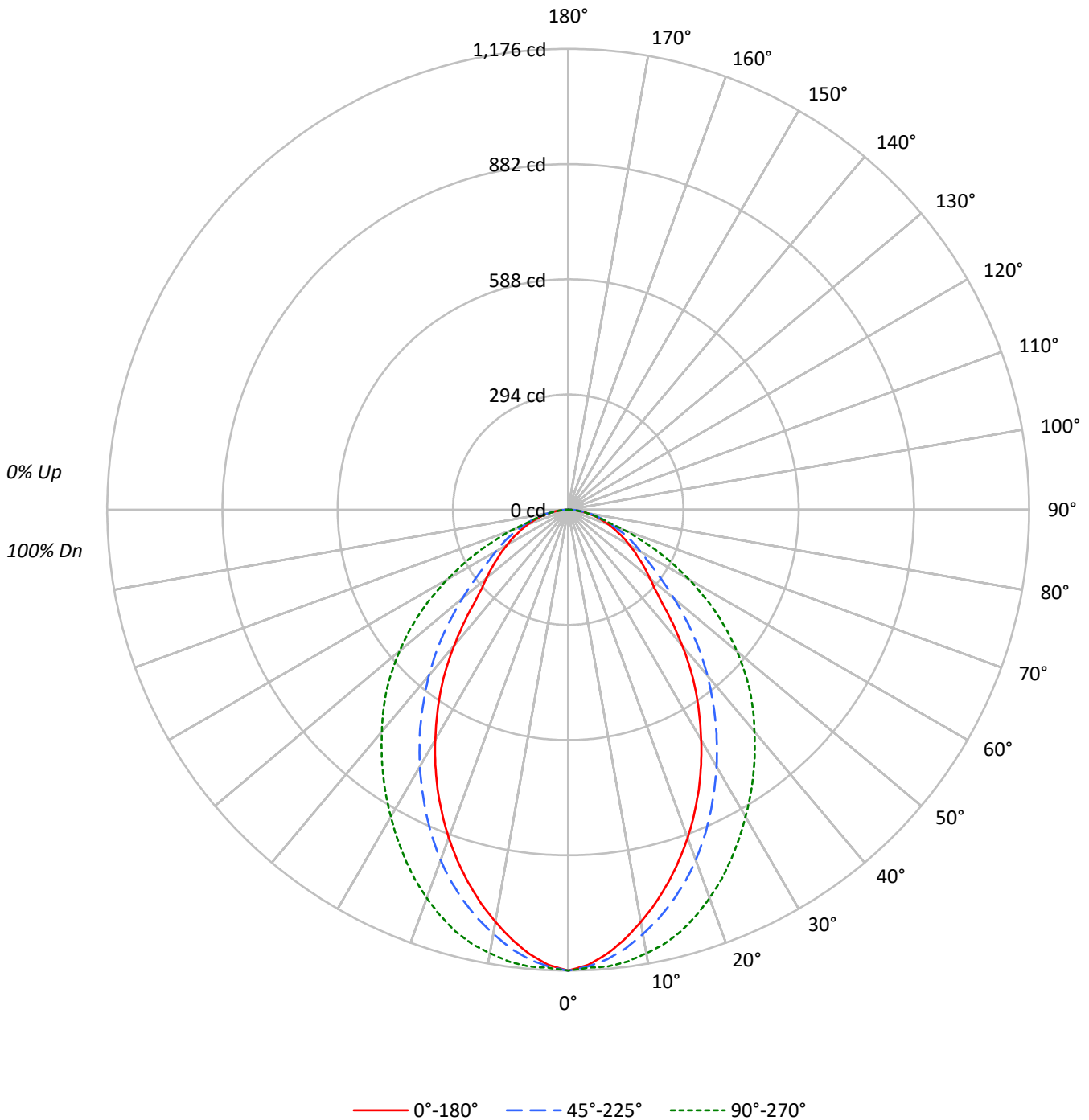
Lumens per Lamp: N/A
Luminaire Lumens: 2158.3 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75		
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65		
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50	50	50	50	50	50	50		
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45		
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40		
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37		
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33		
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10129	10129	10129
5°	9834	9952	10114
10°	9339	9611	10049
15°	8779	9206	9929
20°	8165	8718	9663
25°	7487	8140	9346
30°	6749	7525	8995
35°	5974	6882	8656
40°	5079	6213	8308
45°	4158	5489	7986
50°	3640	4713	7517
55°	3345	4063	6954
60°	3102	3658	6131
65°	2906	3435	5133
70°	2727	3145	3852
75°	2562	2875	2805
80°	2375	2633	2375
85°	2164	2569	2055

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7986 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	5.0
10°-20°	292.5	13.6
20°-30°	399.8	18.5
30°-40°	420.2	19.5
40°-50°	364.6	16.9
50°-60°	275.0	12.7
60°-70°	178.3	8.3
70°-80°	91.5	4.2
80°-90°	27.7	1.3
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°	801.0	37.1
0°-40°	1221.2	56.6
0°-60°	1860.8	86.2
0°-90°	2158.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2158.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1138	1153	1151	1161	1170	106
15°	985	1009	1033	1079	1114	276
25°	788	816	857	922	984	361
35°	568	600	655	742	823	353
45°	341	374	451	563	656	269
55°	223	229	271	384	463	200
65°	143	146	169	204	252	142
75°	77	86	86	87	84	82
85°	22	27	26	25	21	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1176.3	1176.3	1176.3	1176.3	1176.3
2.5°	1162.7	1177.3	1166.9	1169.0	1170.0
5°	1137.7	1153.4	1151.3	1160.6	1170.0
7.5°	1105.5	1124.2	1128.4	1147.1	1162.7
10°	1068.0	1088.8	1099.2	1129.4	1149.2
12.5°	1028.4	1049.3	1068.0	1106.5	1134.6
15°	984.7	1008.7	1032.6	1079.4	1113.8
17.5°	938.9	963.9	994.1	1045.1	1085.7
20°	891.0	916.0	951.4	1006.6	1054.5
22.5°	840.0	868.1	905.6	964.9	1021.2
25°	788.0	816.1	856.7	922.3	983.7
27.5°	733.9	763.0	806.7	879.6	945.2
30°	678.7	709.9	756.8	833.8	904.6
32.5°	622.5	655.8	705.8	788.0	865.0
35°	568.3	599.6	654.7	742.2	823.4
37.5°	512.1	543.4	602.7	697.4	781.7
40°	451.8	486.1	552.7	650.6	739.1
42.5°	395.6	429.9	501.7	605.8	698.5
45°	341.4	373.7	450.7	563.1	655.8
47.5°	299.8	322.7	399.7	521.5	610.0
50°	271.7	282.1	351.8	475.7	561.1
52.5°	246.7	255.0	308.1	429.9	513.2
55°	222.8	229.0	270.6	384.1	463.2
57.5°	201.9	205.1	237.3	338.3	409.1
60°	180.1	184.2	212.4	291.5	356.0
62.5°	162.4	164.5	190.5	246.7	302.9
65°	142.6	145.7	168.6	204.0	251.9
67.5°	124.9	130.1	145.7	166.5	198.8
70°	108.3	115.5	124.9	135.3	153.0
72.5°	92.6	101.0	106.2	110.3	107.2
75°	77.0	86.4	86.4	87.4	84.3
77.5°	62.5	70.8	69.7	68.7	64.5
80°	47.9	55.2	53.1	52.0	47.9
82.5°	35.4	40.6	38.5	37.5	32.3
85°	21.9	27.1	26.0	25.0	20.8
87.5°	10.4	15.6	14.6	13.5	9.4
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	14.55	16.03	14.91	16.35	16.66	18.29	19.77	18.65	20.09	20.40
	3H	16.22	17.55	16.59	17.88	18.24	19.41	20.74	19.79	21.07	21.43
	4H	16.88	18.13	17.28	18.48	18.86	19.71	20.96	20.11	21.30	21.68
	6H	17.39	18.54	17.80	18.91	19.30	19.91	21.06	20.32	21.43	21.82
	8H	17.56	18.66	17.99	19.05	19.45	19.96	21.06	20.39	21.45	21.85
	12H	17.68	18.73	18.12	19.12	19.55	19.99	21.04	20.43	21.43	21.86
4H	2H	15.34	16.59	15.74	16.94	17.32	18.45	19.70	18.85	20.05	20.43
	3H	17.21	18.25	17.62	18.65	19.05	19.78	20.82	20.19	21.22	21.62
	4H	18.02	18.95	18.45	19.36	19.80	20.20	21.13	20.63	21.55	21.98
	6H	18.66	19.47	19.12	19.91	20.37	20.52	21.33	20.98	21.77	22.23
	8H	18.88	19.64	19.35	20.08	20.55	20.61	21.37	21.08	21.82	22.28
	12H	19.05	19.72	19.53	20.20	20.67	20.69	21.36	21.17	21.84	22.31
8H	4H	18.36	19.12	18.83	19.56	20.03	20.33	21.09	20.79	21.53	22.00
	6H	19.15	19.78	19.65	20.27	20.75	20.75	21.37	21.25	21.87	22.34
	8H	19.47	20.03	19.99	20.54	21.03	20.91	21.47	21.42	21.98	22.47
	12H	19.74	20.23	20.25	20.73	21.29	21.05	21.54	21.56	22.03	22.60
12H	4H	18.39	19.07	18.88	19.55	20.02	20.34	21.01	20.82	21.49	21.96
	6H	19.21	19.78	19.73	20.29	20.78	20.77	21.33	21.29	21.84	22.33
	8H	19.60	20.10	20.11	20.59	21.16	20.98	21.48	21.49	21.97	22.53