

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: P1060227

Luminaire Tested: S124RDRP-S1020D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060227
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-S1020D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

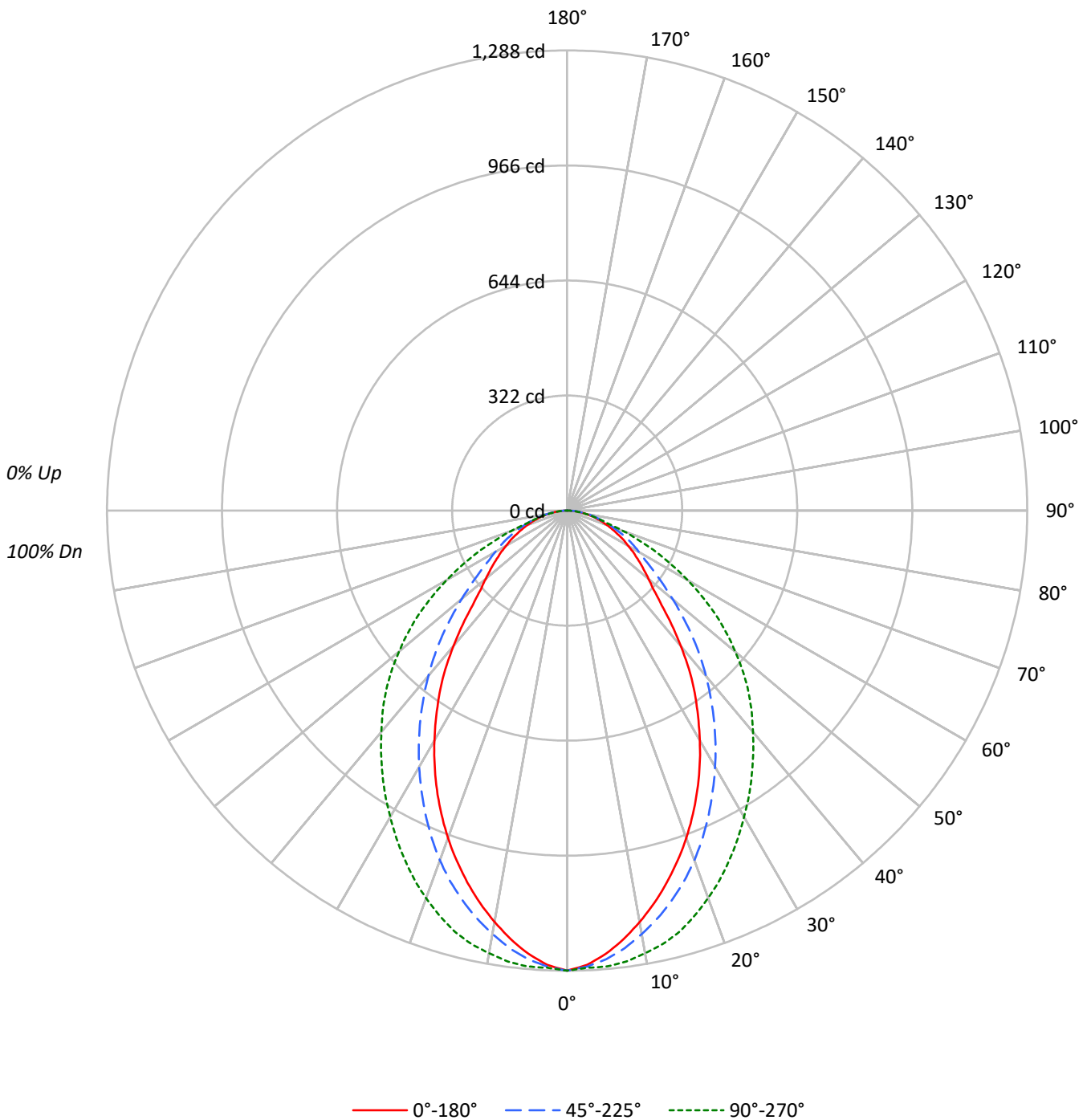
Lumens per Lamp: N/A
Luminaire Lumens: 2362.8 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11089	11089	11089
5°	10766	10894	11071
10°	10223	10522	11000
15°	9610	10077	10870
20°	8938	9544	10578
25°	8196	8910	10231
30°	7388	8237	9846
35°	6541	7535	9476
40°	5560	6802	9095
45°	4552	6009	8743
50°	3984	5160	8228
55°	3662	4448	7613
60°	3395	4004	6712
65°	3181	3761	5620
70°	2984	3442	4217
75°	2805	3147	3071
80°	2598	2881	2598
85°	2361	2816	2253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8743 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	5.0
10°-20°	320.2	13.6
20°-30°	437.7	18.5
30°-40°	460.0	19.5
40°-50°	399.2	16.9
50°-60°	301.1	12.7
60°-70°	195.2	8.3
70°-80°	100.2	4.2
80°-90°	30.3	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°	876.8	37.1
0°-40°	1336.8	56.6
0°-60°	2037.1	86.2
0°-90°	2362.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2362.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1246	1263	1260	1271	1281	116
15°	1078	1104	1130	1182	1219	302
25°	863	893	938	1010	1077	395
35°	622	656	717	812	901	387
45°	374	409	493	616	718	294
55°	244	251	296	420	507	219
65°	156	160	185	223	276	155
75°	84	95	95	96	92	90
85°	24	30	28	27	23	27
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1287.7	1287.7	1287.7	1287.7	1287.7
2.5°	1272.8	1288.8	1277.4	1279.7	1280.8
5°	1245.5	1262.6	1260.3	1270.6	1280.8
7.5°	1210.2	1230.7	1235.2	1255.8	1272.8
10°	1169.1	1191.9	1203.3	1236.4	1258.0
12.5°	1125.8	1148.6	1169.1	1211.3	1242.1
15°	1078.0	1104.2	1130.4	1181.7	1219.3
17.5°	1027.8	1055.2	1088.2	1144.1	1188.5
20°	975.4	1002.8	1041.5	1101.9	1154.3
22.5°	919.6	950.4	991.4	1056.3	1117.9
25°	862.6	893.4	937.8	1009.6	1076.8
27.5°	803.4	835.3	883.1	962.9	1034.7
30°	743.0	777.2	828.4	912.8	990.2
32.5°	681.4	717.9	772.6	862.6	946.9
35°	622.2	656.4	716.8	812.5	901.4
37.5°	560.6	594.8	659.8	763.5	855.8
40°	494.6	532.2	605.1	712.2	809.1
42.5°	433.0	470.6	549.2	663.2	764.6
45°	373.8	409.1	493.4	616.5	717.9
47.5°	328.2	353.3	437.6	570.9	667.8
50°	297.4	308.8	385.2	520.8	614.2
52.5°	270.1	279.2	337.3	470.6	561.8
55°	243.9	250.7	296.3	420.5	507.1
57.5°	221.1	224.5	259.8	370.3	447.8
60°	197.1	201.7	232.5	319.1	389.7
62.5°	177.8	180.0	208.5	270.1	331.6
65°	156.1	159.5	184.6	223.3	275.8
67.5°	136.7	142.4	159.5	182.3	217.6
70°	118.5	126.5	136.7	148.1	167.5
72.5°	101.4	110.5	116.2	120.8	117.4
75°	84.3	94.6	94.6	95.7	92.3
77.5°	68.4	77.5	76.3	75.2	70.7
80°	52.4	60.4	58.1	57.0	52.4
82.5°	38.7	44.4	42.2	41.0	35.3
85°	23.9	29.6	28.5	27.3	22.8
87.5°	11.4	17.1	16.0	14.8	10.3
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	14.86	16.35	15.23	16.66	16.98	18.60	20.09	18.96	20.40	20.71
	3H	16.53	17.86	16.91	18.19	18.55	19.73	21.06	20.10	21.39	21.75
	4H	17.20	18.44	17.60	18.79	19.17	20.02	21.27	20.42	21.62	22.00
	6H	17.70	18.86	18.12	19.22	19.62	20.22	21.37	20.63	21.74	22.13
	8H	17.88	18.98	18.31	19.37	19.77	20.28	21.37	20.70	21.76	22.16
	12H	18.00	19.05	18.43	19.43	19.86	20.31	21.36	20.74	21.74	22.17
4H	2H	15.65	16.90	16.05	17.25	17.63	18.76	20.01	19.17	20.36	20.74
	3H	17.53	18.56	17.94	18.96	19.36	20.10	21.13	20.51	21.53	21.93
	4H	18.33	19.26	18.76	19.68	20.12	20.51	21.44	20.94	21.86	22.30
	6H	18.97	19.78	19.43	20.23	20.69	20.83	21.64	21.29	22.09	22.55
	8H	19.20	19.95	19.66	20.40	20.87	20.93	21.68	21.39	22.13	22.60
	12H	19.36	20.04	19.84	20.52	20.99	21.00	21.68	21.48	22.15	22.63
8H	4H	18.68	19.43	19.14	19.88	20.35	20.64	21.40	21.11	21.85	22.31
	6H	19.47	20.09	19.96	20.58	21.06	21.06	21.69	21.56	22.18	22.66
	8H	19.79	20.35	20.30	20.86	21.35	21.22	21.78	21.74	22.29	22.78
	12H	20.05	20.54	20.56	21.04	21.60	21.36	21.86	21.87	22.35	22.91
12H	4H	18.71	19.38	19.19	19.86	20.33	20.65	21.33	21.13	21.80	22.28
	6H	19.53	20.09	20.04	20.60	21.09	21.09	21.65	21.60	22.16	22.65
	8H	19.91	20.41	20.42	20.90	21.47	21.29	21.79	21.81	22.28	22.85