

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: P1060227

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S124RDR-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

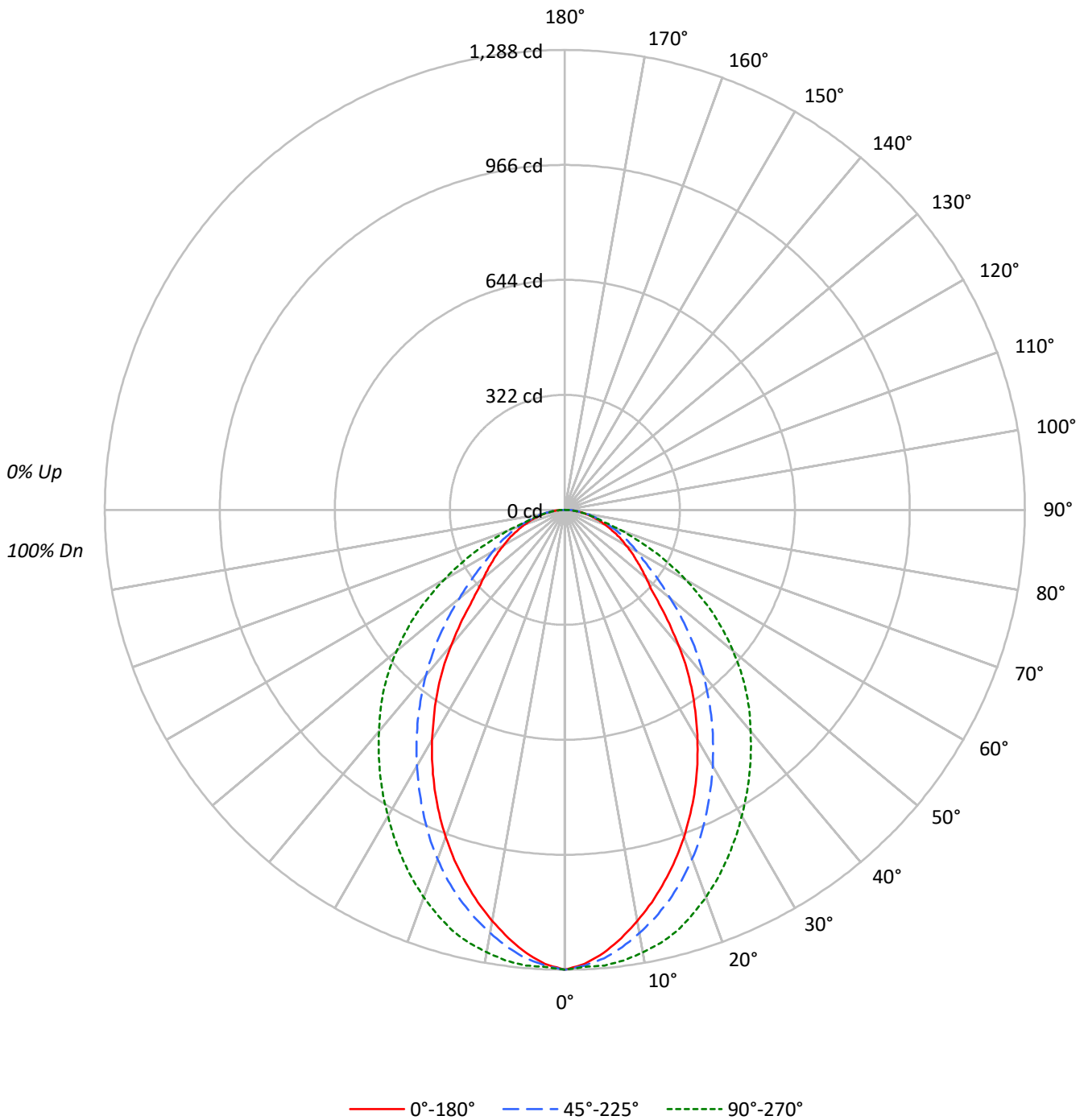
Lumens per Lamp: N/A
Luminaire Lumens: 2362.8 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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

TEST NUMBER: P1060227

CATALOG NUMBER: S124RDR-S1020D830-X4F0-XX-UDD-WVL-W

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				
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

(END OF REPORT)