

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: P1060252

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

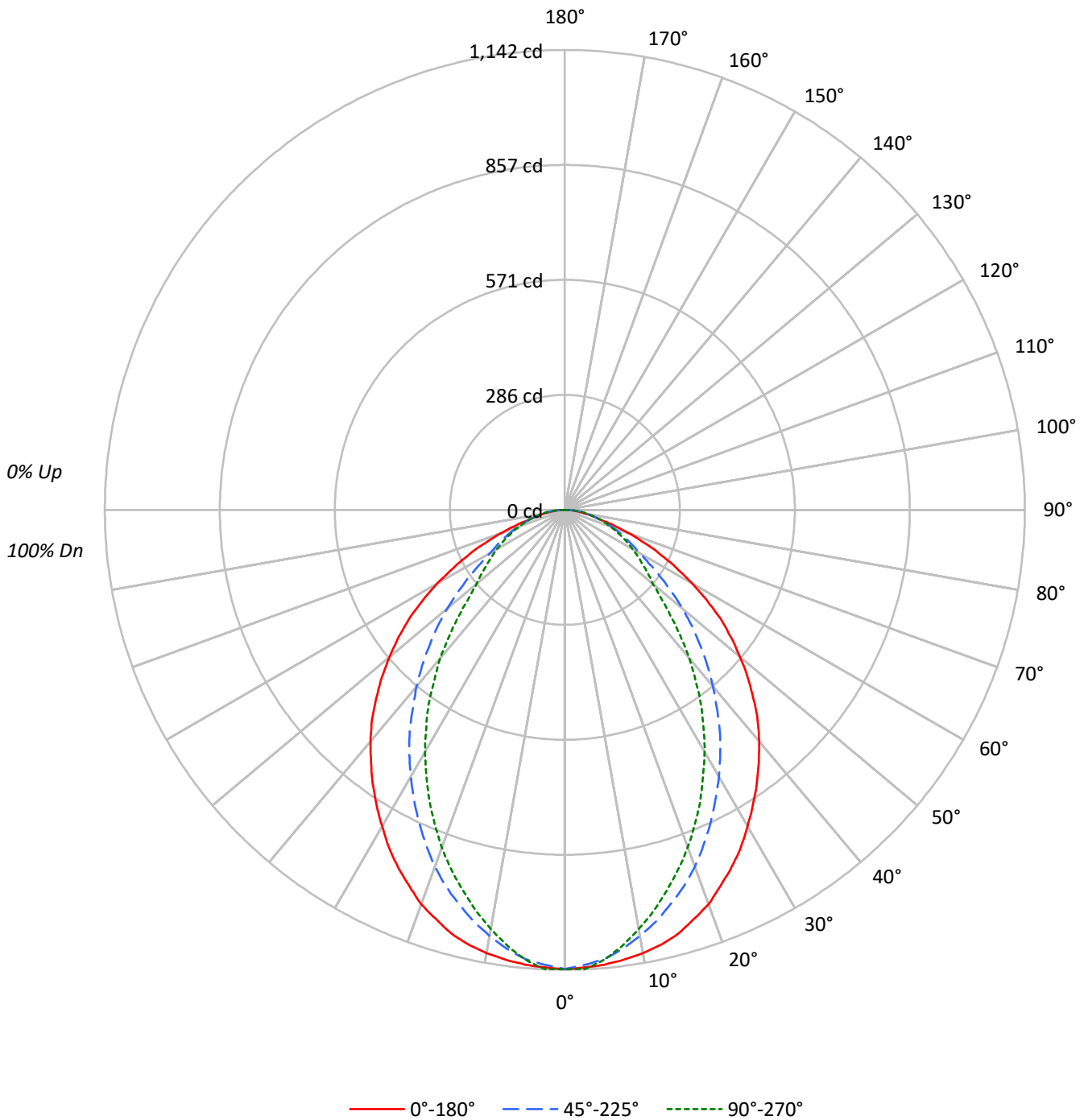
Lumens per Lamp: N/A
Luminaire Lumens: 2198.6 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44			44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36			36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9818	9818	9818
5°	9798	9682	9694
10°	9771	9396	9243
15°	9711	9042	8720
20°	9552	8644	8177
25°	9306	8135	7562
30°	9020	7608	6901
35°	8733	7057	6197
40°	8434	6431	5407
45°	8061	5776	4519
50°	7611	5097	3823
55°	7080	4325	3540
60°	6276	3668	3346
65°	5351	3384	3166
70°	4182	3137	3001
75°	2855	2898	2898
80°	2460	2722	2792
85°	2114	2648	2915

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	4.8
10°-20°	288.1	13.1
20°-30°	400.0	18.2
30°-40°	428.7	19.5
40°-50°	379.8	17.3
50°-60°	286.2	13.0
60°-70°	185.3	8.4
70°-80°	95.1	4.3
80°-90°	29.2	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°	794.1	36.1
0°-40°	1222.9	55.6
0°-60°	1888.9	85.9
0°-90°	2198.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2198.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1134	1135	1120	1122	1122	108
15°	1089	1065	1014	989	978	306
25°	979	927	856	811	796	451
35°	831	756	671	611	590	519
45°	662	576	474	401	371	510
55°	472	393	288	242	236	419
65°	263	212	166	157	155	260
75°	86	90	87	87	87	101
85°	21	23	27	30	30	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1140.2	1140.2	1140.2	1140.2	1140.2
2.5°	1137.5	1141.6	1130.8	1138.9	1141.6
5°	1133.5	1134.9	1120.1	1121.5	1121.5
7.5°	1126.8	1124.1	1100.0	1093.3	1092.0
10°	1117.4	1109.4	1074.6	1061.2	1057.1
12.5°	1105.4	1090.6	1046.4	1027.7	1019.6
15°	1089.3	1065.2	1014.3	988.8	978.1
17.5°	1065.2	1034.4	980.8	948.6	936.6
20°	1042.4	1000.9	943.3	903.1	892.3
22.5°	1010.2	966.0	900.4	857.5	844.1
25°	979.4	927.2	856.2	810.6	795.9
27.5°	945.9	887.0	810.6	762.4	743.6
30°	907.1	844.1	765.1	714.1	694.0
32.5°	869.6	802.6	718.2	661.9	640.4
35°	830.7	755.7	671.3	611.0	589.5
37.5°	790.5	711.5	619.0	560.1	531.9
40°	750.3	667.2	572.1	505.1	481.0
42.5°	708.8	621.7	523.9	454.2	423.4
45°	661.9	576.1	474.3	400.6	371.1
47.5°	616.3	531.9	428.8	348.4	321.6
50°	568.1	485.0	380.5	302.8	285.4
52.5°	519.9	436.8	333.6	268.0	259.9
55°	471.6	392.6	288.1	242.5	235.8
57.5°	418.0	347.0	247.9	219.7	214.4
60°	364.4	297.4	213.0	198.3	194.3
62.5°	312.2	254.6	188.9	176.9	174.2
65°	262.6	211.7	166.1	156.8	155.4
67.5°	214.4	174.2	144.7	139.3	136.7
70°	166.1	139.3	124.6	121.9	119.2
72.5°	123.3	112.5	105.8	104.5	103.2
75°	85.8	89.8	87.1	87.1	87.1
77.5°	68.3	69.7	71.0	72.4	71.0
80°	49.6	53.6	54.9	57.6	56.3
82.5°	34.8	37.5	41.5	42.9	44.2
85°	21.4	22.8	26.8	29.5	29.5
87.5°	9.4	10.7	13.4	16.1	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)