

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: P1060228

Luminaire Tested: S124RDR-S1020D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

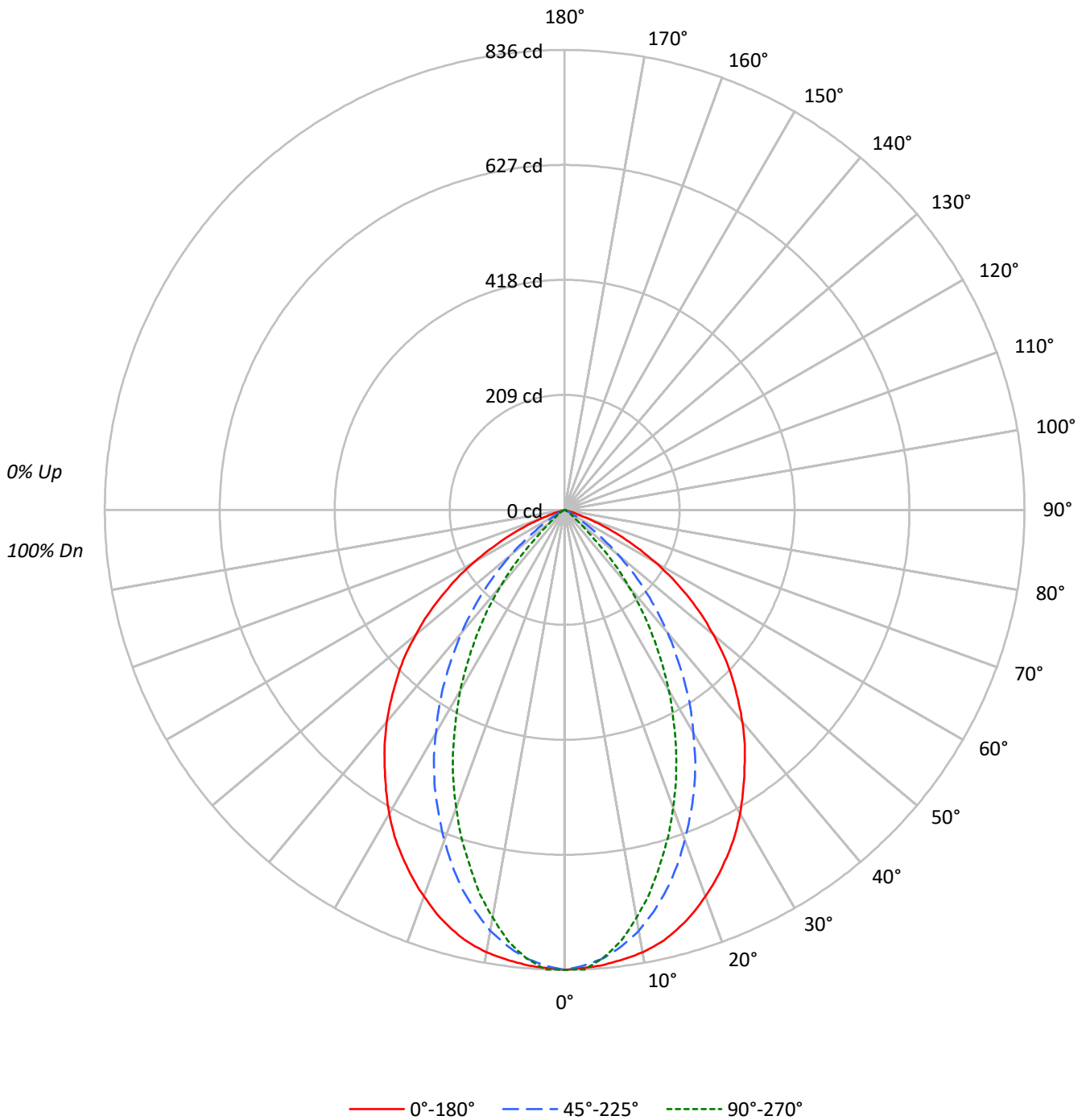
Lumens per Lamp: N/A
Luminaire Lumens: 1091.7 lumens
Efficiency: N/A
Efficacy: 31.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7199	7199	7199
5°	7175	7070	7060
10°	7141	6792	6582
15°	7044	6376	5956
20°	6854	5857	5281
25°	6623	5304	4557
30°	6343	4649	3772
35°	5995	3988	2934
40°	5650	3273	2050
45°	5238	2516	1016
50°	4726	1700	340
55°	4081	871	236
60°	3267	312	167
65°	2239	173	73
70°	1005	91	60
75°	0	40	40
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5238 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	7.1
10°-20°	202.4	18.5
20°-30°	262.0	24.0
30°-40°	248.9	22.8
40°-50°	176.3	16.1
50°-60°	90.5	8.3
60°-70°	31.6	2.9
70°-80°	2.7	0.3
80°-90°	0.0	0.0
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°	541.6	49.6
0°-40°	790.5	72.4
0°-60°	1057.3	96.9
0°-90°	1091.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	830	831	818	818	817	79
15°	790	766	715	681	668	222
25°	697	643	558	499	480	321
35°	570	487	379	306	279	357
45°	430	331	207	118	83	331
55°	272	179	58	17	16	243
65°	110	53	8	5	4	109
75°	0	1	1	1	1	9
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.0	836.0	836.0	836.0	836.0
2.5°	833.6	836.0	828.8	834.8	836.0
5°	830.0	831.2	817.9	817.9	816.7
7.5°	824.0	821.6	799.8	791.3	790.1
10°	816.7	808.3	776.8	758.7	752.7
12.5°	805.8	790.1	747.9	721.3	714.0
15°	790.1	766.0	715.2	681.4	668.1
17.5°	770.8	739.4	679.0	637.9	624.6
20°	747.9	708.0	639.1	593.2	576.3
22.5°	723.7	677.8	598.0	546.1	529.2
25°	697.1	642.7	558.2	499.0	479.6
27.5°	669.3	605.3	514.7	453.1	427.7
30°	637.9	567.8	467.6	403.5	379.4
32.5°	604.1	526.8	425.3	356.4	327.4
35°	570.3	486.9	379.4	305.7	279.1
37.5°	537.6	449.4	333.5	256.1	230.8
40°	502.6	408.4	291.2	211.4	182.4
42.5°	466.4	368.5	247.7	165.5	134.1
45°	430.1	331.0	206.6	118.4	83.4
47.5°	393.9	291.2	166.7	74.9	44.7
50°	352.8	252.5	126.9	39.9	25.4
52.5°	314.1	216.3	90.6	23.0	19.3
55°	271.8	178.8	58.0	16.9	15.7
57.5°	232.0	142.6	32.6	13.3	12.1
60°	189.7	109.9	18.1	10.9	9.7
62.5°	147.4	79.7	12.1	7.2	6.0
65°	109.9	53.2	8.5	4.8	3.6
67.5°	72.5	30.2	6.0	2.4	2.4
70°	39.9	14.5	3.6	2.4	2.4
72.5°	14.5	4.8	2.4	1.2	1.2
75°	0.0	1.2	1.2	1.2	1.2
77.5°	0.0	0.0	0.0	0.0	1.2
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)