

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: P1060228

Luminaire Tested: S124RDRP-S1020D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S124RDRP-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

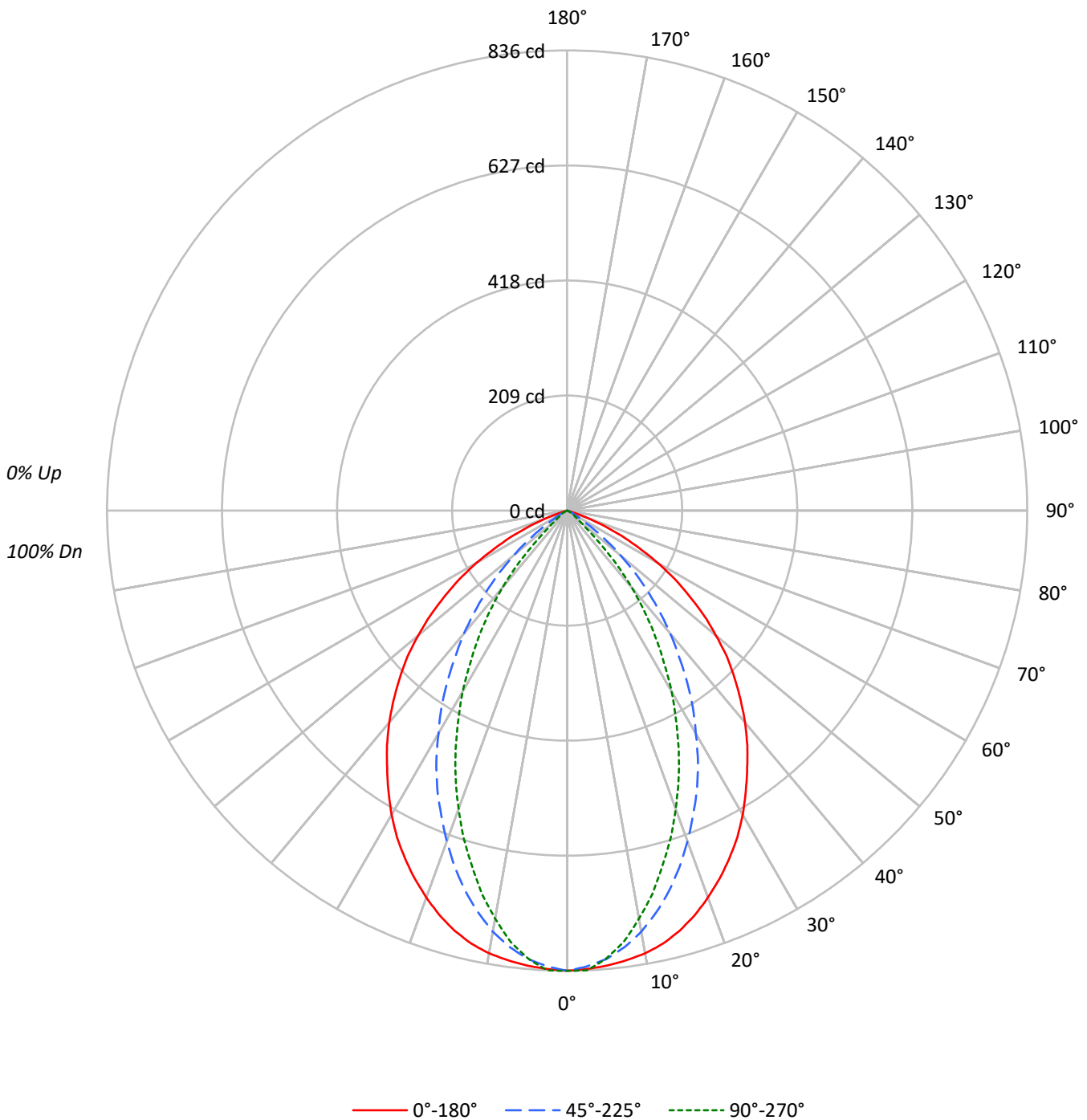
Lumens per Lamp: N/A
Luminaire Lumens: 1091.7 lumens
Efficiency: N/A
Efficacy: 31.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	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

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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	15.39	16.64	15.75	16.96	17.27	0.00	0.00	0.00	0.00	0.00
	3H	15.67	16.77	16.05	17.10	17.47	0.00	0.00	0.00	0.00	0.00
	4H	15.59	16.61	15.99	16.97	17.35	0.00	0.00	0.00	0.00	0.00
	6H	15.50	16.44	15.92	16.81	17.21	0.00	0.00	0.00	0.00	0.00
	8H	15.46	16.34	15.89	16.73	17.14	0.00	0.00	0.00	0.00	0.00
	12H	15.41	16.26	15.84	16.64	17.07	0.00	0.00	0.00	0.00	0.00
4H	2H	15.16	16.19	15.57	16.54	16.92	0.00	0.00	0.00	0.00	0.29
	3H	15.45	16.27	15.86	16.68	17.08	0.00	0.00	0.00	0.00	0.30
	4H	15.35	16.09	15.79	16.51	16.95	0.00	0.00	0.00	0.00	0.24
	6H	15.26	15.90	15.73	16.34	16.81	0.00	0.00	0.00	0.00	0.13
	8H	15.20	15.79	15.68	16.24	16.71	0.00	0.00	0.00	0.00	0.03
	12H	15.15	15.67	15.64	16.15	16.63	0.00	0.00	0.00	0.00	0.00
8H	4H	15.20	15.79	15.68	16.24	16.71	0.00	0.00	0.00	0.00	0.21
	6H	15.10	15.57	15.60	16.07	16.55	0.00	0.00	0.00	0.00	0.08
	8H	15.03	15.46	15.55	15.97	16.47	0.00	0.00	0.00	0.00	0.00
	12H	14.98	15.36	15.49	15.85	16.43	0.00	0.00	0.00	0.00	0.00
12H	4H	15.15	15.67	15.64	16.15	16.63	0.00	0.00	0.00	0.00	0.13
	6H	15.03	15.46	15.55	15.97	16.47	0.00	0.00	0.00	0.00	0.00
	8H	14.98	15.36	15.49	15.85	16.43	0.00	0.00	0.00	0.00	0.00