

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1061017

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061017
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-H795D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

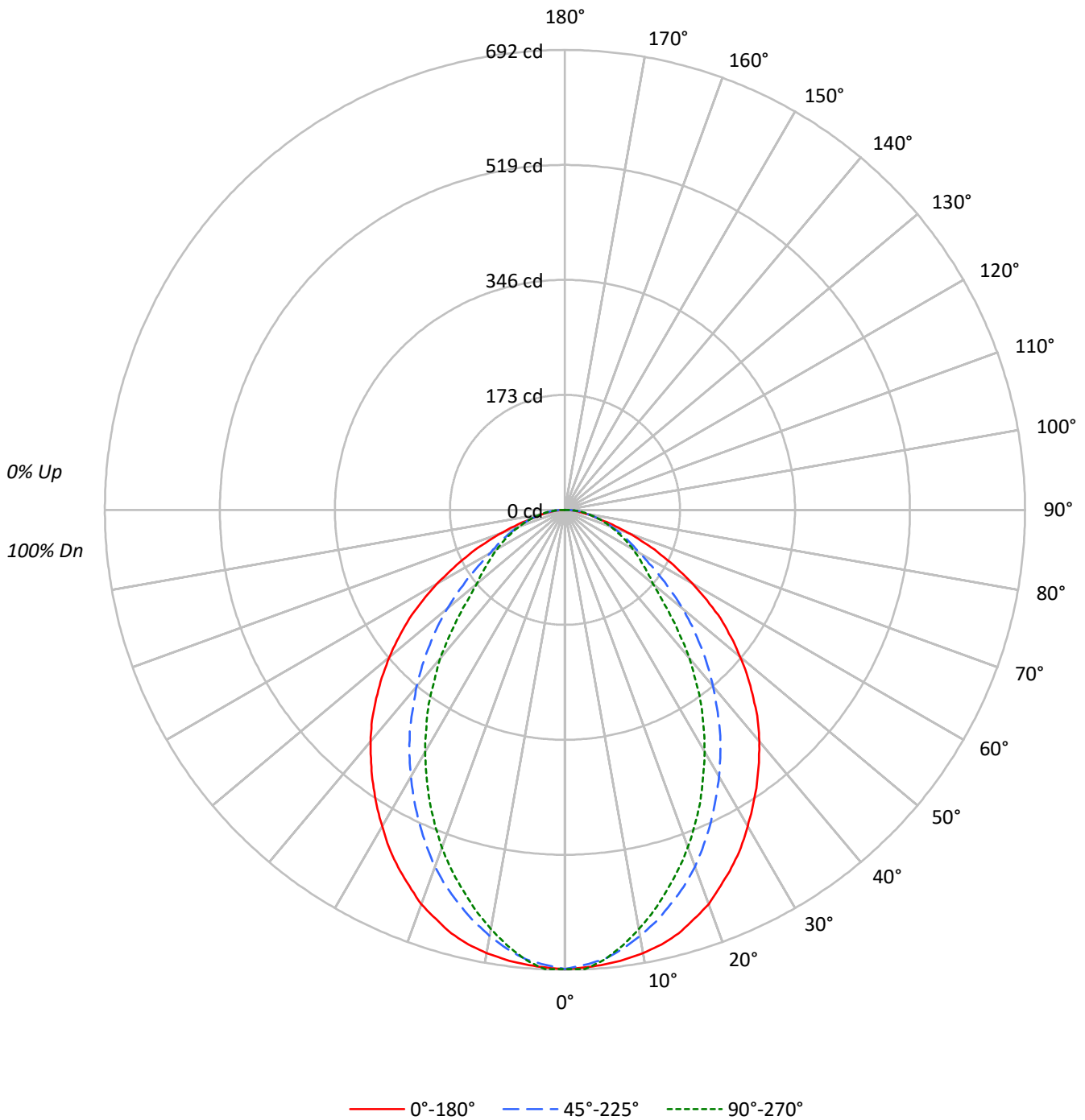
Lumens per Lamp: N/A
Luminaire Lumens: 1332.1 lumens
Efficiency: N/A
Efficacy: 56.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76				74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66				64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58				56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52				50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46				44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42				40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38				36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35				33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32				30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5949	5949	5949
5°	5937	5867	5874
10°	5921	5693	5601
15°	5884	5479	5283
20°	5788	5237	4955
25°	5638	4929	4582
30°	5465	4610	4181
35°	5291	4275	3755
40°	5110	3897	3276
45°	4883	3500	2739
50°	4611	3089	2316
55°	4291	2620	2145
60°	3803	2223	2027
65°	3242	2052	1919
70°	2535	1901	1820
75°	1730	1757	1757
80°	1488	1651	1691
85°	1284	1601	1769

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4883 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	4.8
10°-20°	174.6	13.1
20°-30°	242.3	18.2
30°-40°	259.8	19.5
40°-50°	230.1	17.3
50°-60°	173.4	13.0
60°-70°	112.3	8.4
70°-80°	57.6	4.3
80°-90°	17.7	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°	481.2	36.1
0°-40°	741.0	55.6
0°-60°	1144.5	85.9
0°-90°	1332.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1332.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	691	691	691	691	691	
5°	687	688	679	680	680	65
15°	660	645	615	599	593	186
25°	593	562	519	491	482	273
35°	503	458	407	370	357	315
45°	401	349	287	243	225	309
55°	286	238	174	147	143	254
65°	159	128	101	95	94	158
75°	52	54	53	53	53	61
85°	13	14	16	18	18	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	690.9	690.9	690.9	690.9	690.9
2.5°	689.2	691.7	685.2	690.1	691.7
5°	686.8	687.6	678.7	679.5	679.5
7.5°	682.7	681.1	666.5	662.5	661.6
10°	677.1	672.2	651.1	643.0	640.5
12.5°	669.8	660.8	634.0	622.7	617.8
15°	660.0	645.4	614.6	599.1	592.6
17.5°	645.4	626.7	594.3	574.8	567.5
20°	631.6	606.4	571.5	547.2	540.7
22.5°	612.1	585.3	545.5	519.6	511.5
25°	593.4	561.8	518.8	491.2	482.2
27.5°	573.2	537.4	491.2	461.9	450.6
30°	549.6	511.5	463.6	432.7	420.5
32.5°	526.9	486.3	435.1	401.0	388.1
35°	503.3	457.9	406.7	370.2	357.2
37.5°	479.0	431.1	375.1	339.3	322.3
40°	454.6	404.3	346.7	306.1	291.4
42.5°	429.5	376.7	317.4	275.2	256.5
45°	401.0	349.1	287.4	242.7	224.9
47.5°	373.4	322.3	259.8	211.1	194.8
50°	344.2	293.9	230.6	183.5	172.9
52.5°	315.0	264.7	202.1	162.4	157.5
55°	285.8	237.9	174.5	146.9	142.9
57.5°	253.3	210.3	150.2	133.1	129.9
60°	220.8	180.2	129.1	120.2	117.7
62.5°	189.2	154.2	114.5	107.2	105.5
65°	159.1	128.3	100.7	95.0	94.2
67.5°	129.9	105.5	87.7	84.4	82.8
70°	100.7	84.4	75.5	73.9	72.3
72.5°	74.7	68.2	64.1	63.3	62.5
75°	52.0	54.4	52.8	52.8	52.8
77.5°	41.4	42.2	43.0	43.8	43.0
80°	30.0	32.5	33.3	34.9	34.1
82.5°	21.1	22.7	25.2	26.0	26.8
85°	13.0	13.8	16.2	17.9	17.9
87.5°	5.7	6.5	8.1	9.7	10.6
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	16.64	18.13	17.00	18.45	18.76	13.20	14.70	13.56	15.01	15.32
	3H	17.84	19.18	18.22	19.51	19.87	14.89	16.24	15.27	16.57	16.93
	4H	18.15	19.41	18.55	19.76	20.13	15.57	16.83	15.97	17.18	17.56
	6H	18.35	19.51	18.76	19.88	20.27	16.12	17.28	16.53	17.65	18.04
	8H	18.41	19.51	18.83	19.90	20.31	16.34	17.45	16.77	17.84	18.24
	12H	18.44	19.50	18.87	19.88	20.31	16.51	17.57	16.94	17.95	18.38
4H	2H	16.78	18.04	17.18	18.39	18.76	13.86	15.12	14.26	15.47	15.85
	3H	18.18	19.22	18.59	19.62	20.03	15.77	16.81	16.18	17.21	17.62
	4H	18.61	19.55	19.04	19.96	20.40	16.57	17.51	17.00	17.93	18.37
	6H	18.93	19.75	19.39	20.19	20.65	17.26	18.08	17.72	18.52	18.98
	8H	19.03	19.79	19.49	20.24	20.70	17.53	18.30	18.00	18.74	19.21
	12H	19.10	19.78	19.58	20.26	20.73	17.76	18.45	18.25	18.92	19.40
8H	4H	18.73	19.50	19.20	19.94	20.41	16.89	17.65	17.35	18.10	18.56
	6H	19.15	19.79	19.65	20.28	20.75	17.72	18.35	18.21	18.84	19.32
	8H	19.31	19.88	19.83	20.39	20.88	18.08	18.65	18.60	19.16	19.65
	12H	19.44	19.94	19.95	20.43	21.00	18.42	18.92	18.93	19.41	19.98
12H	4H	18.74	19.42	19.22	19.90	20.37	16.92	17.60	17.40	18.08	18.55
	6H	19.18	19.75	19.69	20.26	20.75	17.78	18.34	18.29	18.85	19.34
	8H	19.39	19.89	19.90	20.38	20.95	18.21	18.71	18.72	19.20	19.77