

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: P1059090

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059090
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

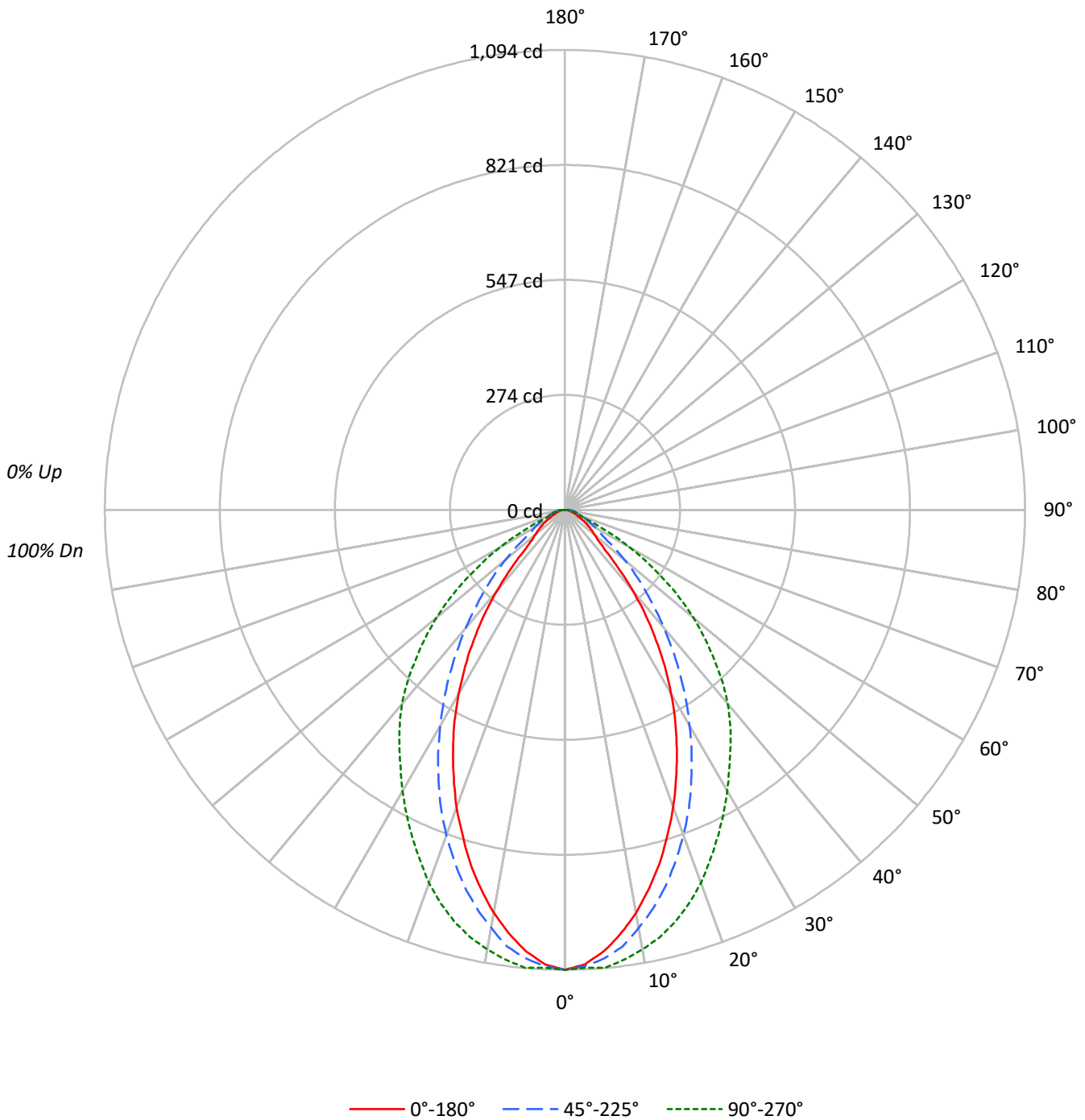
Lumens per Lamp: N/A
Luminaire Lumens: 1469.0 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89		89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79		79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71		71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64		64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58		58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52		52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48		48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44		44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40		40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12850	12850	12850
5°	12434	12627	12884
10°	11605	12043	12659
15°	10576	11255	12328
20°	9411	10294	11806
25°	8155	9212	11131
30°	6838	8036	10469
35°	5417	6841	9841
40°	3834	5626	9231
45°	2257	4447	8308
50°	1688	3378	7276
55°	1419	2283	5845
60°	1148	1947	4150
65°	906	1662	2189
70°	793	1445	1353
75°	740	1357	1293
80°	737	1474	1285
85°	916	2196	1644

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8308 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	6.9
10°-20°	261.7	17.8
20°-30°	333.3	22.7
30°-40°	313.5	21.3
40°-50°	225.8	15.4
50°-60°	130.4	8.9
60°-70°	59.6	4.1
70°-80°	29.8	2.0
80°-90°	14.1	1.0
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°	695.8	47.4
0°-40°	1009.3	68.7
0°-60°	1365.6	93.0
0°-90°	1469.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1469.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1055	1073	1071	1082	1093	98
15°	870	901	926	977	1014	242
25°	629	662	711	790	859	288
35°	378	410	477	587	686	234
45°	136	170	268	402	500	115
55°	69	72	112	212	286	62
65°	33	46	60	67	79	33
75°	16	31	30	28	28	17
85°	7	15	16	15	12	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1094.3	1094.3	1094.3	1094.3	1094.3
2.5°	1082.1	1095.7	1086.2	1087.5	1090.2
5°	1054.9	1072.6	1071.2	1082.1	1093.0
7.5°	1016.8	1037.2	1048.1	1064.4	1079.4
10°	973.3	996.4	1010.0	1039.9	1061.7
12.5°	923.0	952.9	970.6	1010.0	1041.3
15°	870.0	901.3	925.8	977.4	1014.1
17.5°	810.2	844.2	875.5	936.6	981.5
20°	753.1	785.7	823.8	890.4	944.8
22.5°	690.6	725.9	769.4	840.1	901.3
25°	629.4	662.0	711.0	789.8	859.1
27.5°	568.2	600.9	652.5	739.5	815.6
30°	504.3	538.3	592.7	689.2	772.1
32.5°	441.8	474.4	535.6	640.3	727.3
35°	377.9	410.5	477.2	587.3	686.5
37.5°	315.4	349.4	420.1	543.8	645.7
40°	250.1	286.8	367.0	498.9	602.2
42.5°	189.0	228.4	314.0	452.7	554.6
45°	135.9	169.9	267.8	402.4	500.3
47.5°	106.0	123.7	225.7	350.7	450.0
50°	92.4	95.2	184.9	303.1	398.3
52.5°	80.2	82.9	145.5	258.3	343.9
55°	69.3	72.0	111.5	212.1	285.5
57.5°	58.5	62.5	92.4	168.6	229.7
60°	48.9	54.4	82.9	129.1	176.7
62.5°	39.4	48.9	70.7	95.2	126.4
65°	32.6	46.2	59.8	66.6	78.8
67.5°	27.2	42.1	50.3	47.6	46.2
70°	23.1	38.1	42.1	38.1	39.4
72.5°	19.0	35.3	35.3	32.6	32.6
75°	16.3	31.3	29.9	28.5	28.5
77.5°	13.6	27.2	25.8	24.5	23.1
80°	10.9	21.8	21.8	20.4	19.0
82.5°	9.5	17.7	17.7	17.7	15.0
85°	6.8	15.0	16.3	15.0	12.2
87.5°	5.4	13.6	13.6	12.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)