

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: P1033787

Luminaire Tested: S124DIW-B795D470UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033787
REPORT IS A COMBINATION OF REPORTS P998192 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B795D470UB40-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

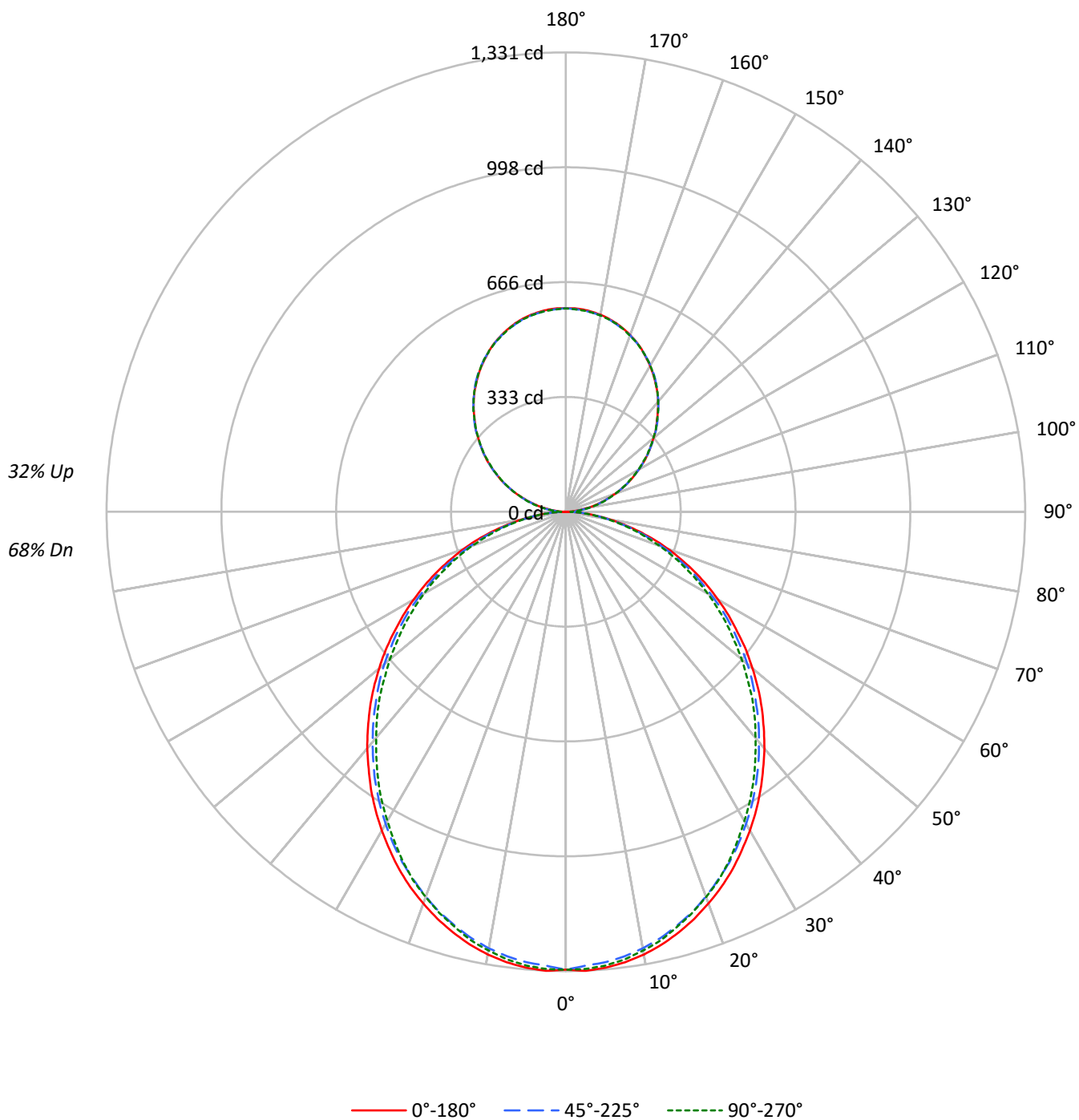
Lumens per Lamp: N/A
Luminaire Lumens: 5042.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 49.1
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	102	97	93	90	96	92	88	85	82	79	77	72	70	69	64	62	61
2	93	85	79	73	87	80	75	70	72	67	63	64	60	57	56	54	51
3	85	75	67	61	79	71	64	58	63	58	53	56	52	48	50	47	44
4	77	66	58	52	73	63	55	50	56	50	46	50	45	42	45	41	38
5	71	59	51	44	67	56	48	43	50	44	39	45	40	36	40	36	33
6	66	53	45	39	62	50	43	37	45	39	34	41	36	32	36	32	29
7	61	48	40	34	57	46	38	33	41	35	30	37	32	28	33	29	26
8	56	44	36	30	53	42	34	29	38	32	27	34	29	25	31	26	23
9	53	40	32	27	50	38	31	26	35	29	24	31	26	23	28	24	21
10	49	37	29	24	46	35	28	24	32	26	22	29	24	21	26	22	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10821	10821	10821
5°	10830	10510	10523
10°	10738	10218	10146
15°	10584	9871	9722
20°	10387	9495	9283
25°	10166	9099	8810
30°	9899	8671	8291
35°	9623	8232	7789
40°	9335	7759	7255
45°	9032	7286	6756
50°	8697	6827	6204
55°	8334	6291	5655
60°	7961	5703	5084
65°	7536	5096	4439
70°	7045	4367	3750
75°	6311	3519	3003
80°	5380	2545	2113
85°	4177	1417	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9032 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	2.5
10°-20°	352.4	7.0
20°-30°	518.6	10.3
30°-40°	602.8	12.0
40°-50°	602.8	12.0
50°-60°	527.2	10.5
60°-70°	391.4	7.8
70°-80°	222.1	4.4
80°-90°	64.9	1.3
90°-100°	38.4	0.8
100°-110°	115.0	2.3
110°-120°	195.4	3.9
120°-130°	257.7	5.1
130°-140°	289.5	5.7
140°-150°	284.5	5.6
150°-160°	239.3	4.7
160°-170°	159.2	3.2
170°-180°	55.7	1.1
0°-30°	996.1	19.8
0°-40°	1598.9	31.7
0°-60°	2728.9	54.1
0°-90°	3407.3	67.6
90°-120°	348.8	6.9
90°-150°	1180.5	23.4
90°-180°	1635.0	32.4
0°-180°	5042.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1326	1322	1310	1322	1320	126
15°	1262	1258	1242	1248	1245	356
25°	1143	1136	1121	1122	1118	526
35°	984	976	961	954	948	615
45°	803	795	778	767	763	619
55°	607	604	589	576	570	544
65°	412	406	396	385	380	407
75°	219	214	208	204	203	232
85°	57	57	55	55	54	62
90°	1	6	10	13	14	6
95°	27	31	35	36	36	30
105°	106	107	108	110	111	113
115°	199	199	198	197	197	196
125°	289	289	289	288	287	258
135°	373	376	376	375	374	289
145°	453	455	456	455	454	284
155°	520	520	519	521	519	239
165°	566	564	563	566	564	159
175°	588	586	586	589	586	56
180°	589	589	589	589	589	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1327.0	1327.0	1327.0	1327.0	1327.0
2.5°	1331.3	1328.1	1316.4	1327.0	1325.9
5°	1325.9	1321.7	1310.0	1321.7	1319.6
7.5°	1316.4	1312.1	1299.4	1308.9	1307.9
10°	1302.5	1298.3	1284.5	1293.0	1290.8
12.5°	1284.5	1280.2	1265.3	1274.9	1271.7
15°	1262.1	1257.9	1241.9	1248.3	1245.1
17.5°	1236.6	1231.3	1216.4	1220.7	1218.5
20°	1207.9	1202.6	1186.6	1189.8	1187.7
22.5°	1177.1	1169.6	1153.7	1160.1	1155.8
25°	1143.0	1135.6	1120.7	1121.8	1117.5
27.5°	1104.8	1097.3	1083.5	1081.4	1076.1
30°	1066.5	1058.0	1044.2	1039.9	1034.6
32.5°	1026.1	1018.6	1003.8	998.4	993.1
35°	983.6	976.1	961.2	953.8	948.5
37.5°	938.9	932.5	916.6	909.1	901.7
40°	895.3	886.8	870.8	860.2	854.9
42.5°	848.5	844.3	826.2	813.4	810.2
45°	802.8	795.3	778.3	766.6	763.4
47.5°	754.9	749.6	733.7	720.9	712.4
50°	706.0	701.8	686.9	672.0	665.6
52.5°	658.2	652.9	636.9	624.2	615.7
55°	607.1	604.0	589.1	576.3	569.9
57.5°	559.3	556.1	541.2	528.5	522.1
60°	509.3	504.0	490.2	480.6	475.3
62.5°	460.4	456.2	441.3	432.8	427.4
65°	411.5	406.2	395.5	384.9	379.6
67.5°	361.5	357.3	346.6	336.0	334.9
70°	315.8	308.4	299.9	291.3	288.2
72.5°	266.9	259.4	253.1	246.7	243.5
75°	219.0	213.7	208.4	204.2	203.1
77.5°	172.3	170.1	164.8	163.7	160.6
80°	130.8	127.6	125.5	123.3	122.3
82.5°	90.4	89.3	89.3	88.3	87.2
85°	57.4	57.4	55.3	55.3	54.2
87.5°	27.6	26.6	25.5	25.5	25.5
90°	1.4	6.4	10.0	12.8	13.7
92.5°	11.8	17.8	20.0	21.4	21.9
95°	27.3	31.4	34.6	36.0	36.0
97.5°	43.7	47.4	51.0	52.9	52.9
100°	63.8	65.6	69.7	70.6	70.6
102.5°	84.8	85.2	88.9	90.2	90.7
105°	106.2	106.6	108.4	109.8	111.2
107.5°	128.5	129.0	129.4	131.2	130.8
110°	151.3	152.2	151.7	150.8	152.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	175.0	175.0	174.1	174.1	174.1
115°	198.7	198.7	197.8	197.3	196.8
117.5°	221.0	221.0	220.5	219.2	217.8
120°	243.3	245.1	243.8	241.5	242.4
122.5°	266.6	267.0	266.6	265.2	262.9
125°	289.3	289.3	288.9	288.0	287.1
127.5°	309.9	311.2	310.3	309.4	308.9
130°	331.7	333.1	333.1	332.2	330.4
132.5°	354.1	355.0	354.5	353.6	353.1
135°	373.2	375.9	375.9	375.0	373.6
137.5°	394.6	396.0	396.9	395.5	396.0
140°	416.0	416.9	416.9	416.5	416.0
142.5°	435.6	436.5	436.1	436.1	436.1
145°	453.4	455.2	455.7	455.2	453.8
147.5°	471.6	473.9	473.4	473.0	472.5
150°	488.0	489.8	489.8	489.8	489.4
152.5°	503.5	504.4	504.9	506.2	504.9
155°	519.5	519.5	519.0	520.8	519.0
157.5°	533.1	532.2	532.2	533.6	532.2
160°	545.0	544.5	544.1	545.4	543.2
162.5°	555.9	554.5	554.1	556.8	554.5
165°	565.5	564.1	563.2	565.9	564.1
167.5°	573.2	571.4	571.4	574.1	571.4
170°	579.6	577.3	577.8	580.5	577.3
172.5°	584.2	582.3	582.3	585.5	582.3
175°	588.3	586.0	585.5	588.7	585.5
177.5°	590.1	587.8	587.8	591.0	587.4
180°	589.2	589.2	589.2	589.2	589.2

(END OF REPORT)