

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: P1000749

Luminaire Tested: SA4XXDIP-B1020D810UB27-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1000749
REPORT IS A COMBINATION OF REPORTS P995362 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-B1020D810UB27-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

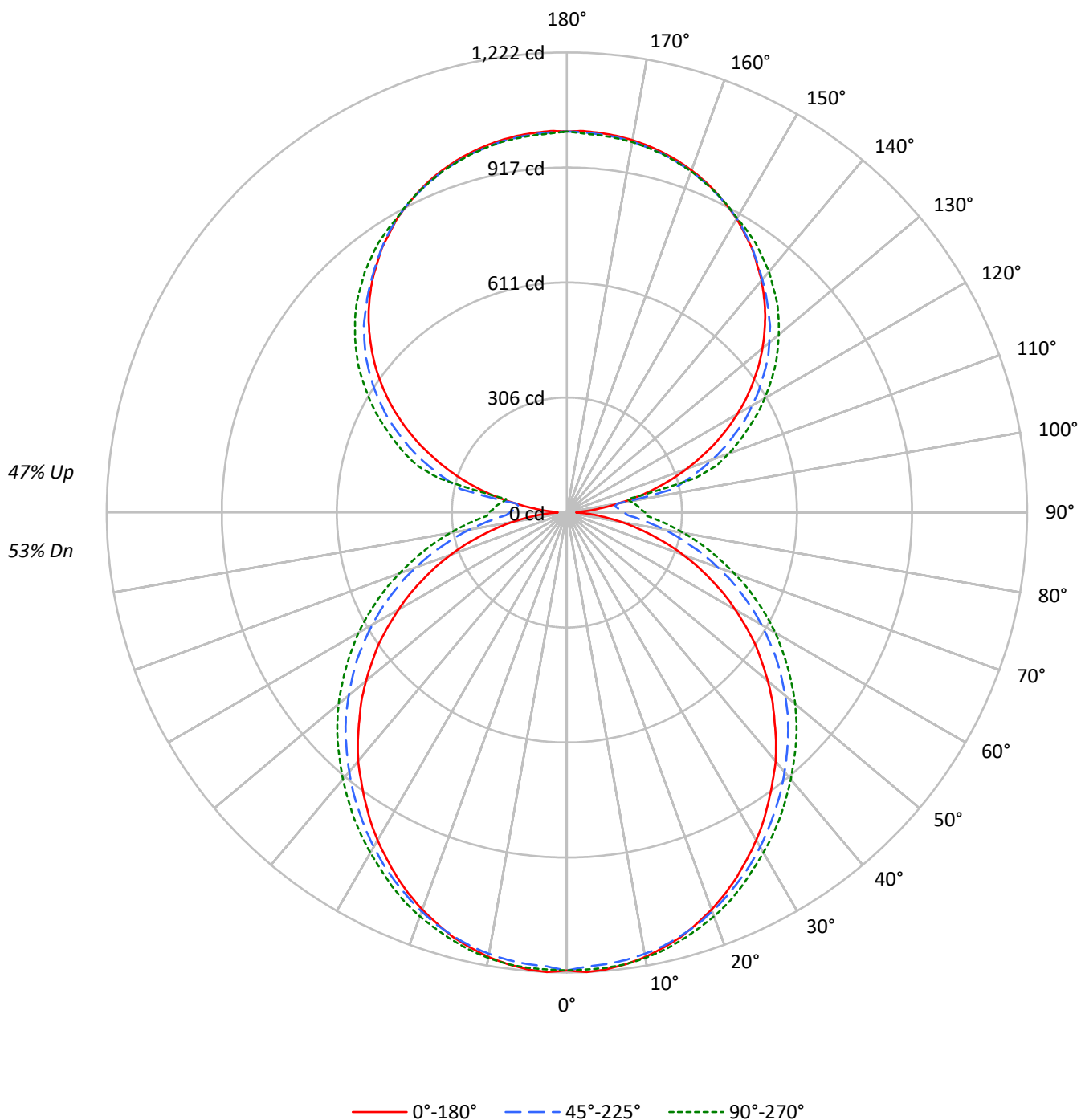
Lumens per Lamp: N/A
Luminaire Lumens: 7282.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 67.9
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59
1	97	93	88	84	90	86	82	79	73	70	67	61	59	57	50	49	47
2	88	80	74	68	81	74	68	64	63	59	55	53	50	47	43	41	39
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	33
4	73	62	53	47	67	57	50	44	49	43	39	41	37	33	34	31	28
5	67	55	46	40	62	51	43	38	44	38	33	37	32	29	30	27	24
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	24	21
7	57	44	36	30	52	41	34	29	35	30	25	30	25	22	25	21	19
8	53	40	32	27	49	37	30	25	32	26	22	27	23	19	23	19	17
9	49	37	29	24	45	34	27	22	30	24	20	25	21	17	21	18	15
10	46	34	26	21	42	31	25	20	27	22	18	23	19	16	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9921	9921	9921
5°	9948	9663	9680
10°	9884	9472	9445
15°	9791	9259	9181
20°	9654	9027	8923
25°	9499	8772	8646
30°	9333	8519	8363
35°	9144	8261	8111
40°	8992	8012	7851
45°	8768	7780	7620
50°	8577	7515	7378
55°	8379	7260	7098
60°	8072	6942	6834
65°	7734	6601	6517
70°	7324	6209	6151
75°	6752	5776	5802
80°	6108	5332	5436
85°	5254	4887	5140

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8768 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	1.6
10°-20°	330.3	4.5
20°-30°	499.4	6.9
30°-40°	604.2	8.3
40°-50°	638.7	8.8
50°-60°	601.1	8.3
60°-70°	498.8	6.9
70°-80°	350.0	4.8
80°-90°	199.4	2.7
90°-100°	151.1	2.1
100°-110°	308.3	4.2
110°-120°	480.9	6.6
120°-130°	569.2	7.8
130°-140°	588.0	8.1
140°-150°	539.4	7.4
150°-160°	432.7	5.9
160°-170°	279.0	3.8
170°-180°	96.2	1.3
0°-30°	945.0	13.0
0°-40°	1549.1	21.3
0°-60°	2789.0	38.3
0°-90°	3837.3	52.7
90°-120°	940.2	12.9
90°-150°	2636.8	36.2
90°-180°	3445.0	47.3
0°-180°	7282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1218	1214	1204	1215	1214	116
15°	1168	1169	1165	1177	1176	329
25°	1068	1076	1080	1095	1097	492
35°	935	951	965	984	988	585
45°	779	805	831	854	861	602
55°	610	639	680	707	715	544
65°	422	466	512	546	557	419
75°	234	285	342	380	392	249
85°	72	129	191	232	245	75
90°	24	87	152	196	208	17
95°	59	79	135	176	190	65
105°	240	272	326	367	351	252
115°	434	448	491	522	532	427
125°	603	605	638	666	675	539
135°	745	744	756	780	789	574
145°	857	858	858	867	874	536
155°	938	939	936	940	937	433
165°	989	986	986	992	985	280
175°	1012	1008	1008	1015	1006	96
180°	1012	1012	1012	1012	1012	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1216.6	1216.6	1216.6	1216.6	1216.6
2.5°	1222.1	1218.0	1207.1	1216.6	1215.3
5°	1218.0	1213.9	1204.4	1215.3	1213.9
7.5°	1209.8	1207.1	1198.9	1211.2	1209.8
10°	1198.9	1197.6	1190.7	1203.0	1201.6
12.5°	1183.9	1183.9	1179.8	1190.7	1190.7
15°	1167.6	1168.9	1164.9	1177.1	1175.8
17.5°	1145.8	1149.9	1148.5	1160.8	1159.4
20°	1122.6	1126.7	1128.1	1141.7	1141.7
22.5°	1096.7	1102.2	1104.9	1118.5	1121.3
25°	1068.1	1076.3	1080.4	1095.4	1096.7
27.5°	1036.8	1049.1	1054.5	1068.1	1069.5
30°	1005.5	1016.4	1025.9	1040.9	1043.6
32.5°	971.4	985.0	995.9	1013.6	1016.4
35°	934.6	951.0	964.6	983.7	987.7
37.5°	897.8	916.9	933.3	952.3	956.4
40°	862.4	880.1	899.2	919.6	925.1
42.5°	821.5	842.0	865.1	888.3	892.4
45°	779.3	805.2	831.1	854.2	861.0
47.5°	739.8	765.7	795.6	818.8	827.0
50°	696.2	726.2	756.1	783.4	791.6
52.5°	652.6	682.6	718.0	745.2	753.4
55°	610.4	639.0	679.8	707.1	715.3
57.5°	562.7	598.1	637.6	670.3	677.1
60°	516.4	551.8	596.7	628.1	639.0
62.5°	471.4	510.9	555.9	587.2	598.1
65°	422.3	465.9	512.3	546.3	557.2
67.5°	376.0	422.3	471.4	505.5	516.4
70°	328.3	374.7	426.4	463.2	472.8
72.5°	282.0	329.7	385.6	421.0	431.9
75°	234.3	284.7	342.0	380.1	392.4
77.5°	189.4	242.5	302.5	340.6	354.2
80°	148.5	203.0	262.9	303.8	314.7
82.5°	107.6	164.9	224.8	267.0	279.3
85°	72.2	129.4	190.7	231.6	245.2
87.5°	45.0	100.8	160.8	200.3	212.5
90°	24.1	86.9	151.6	195.6	208.0
92.5°	31.8	77.9	142.6	185.3	196.2
95°	59.3	78.6	135.2	176.5	189.6
97.5°	95.8	152.0	128.4	167.5	180.6
100°	139.2	188.2	136.8	160.7	171.1
102.5°	189.1	228.2	289.0	154.2	165.1
105°	240.2	271.9	326.1	367.0	350.7
107.5°	289.4	314.7	367.7	405.6	418.2
110°	337.9	359.3	411.5	444.4	457.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	385.0	405.9	452.3	481.6	495.5
115°	433.6	448.1	491.0	522.5	532.0
117.5°	478.3	489.4	532.6	560.5	571.4
120°	522.3	529.5	568.2	597.0	606.4
122.5°	564.7	566.2	604.6	632.5	640.6
125°	603.4	605.2	637.7	665.8	674.8
127.5°	642.1	641.5	672.5	696.3	705.1
130°	677.8	677.2	701.3	726.5	734.7
132.5°	711.9	712.0	731.5	755.3	762.8
135°	744.6	743.8	756.5	779.8	789.4
137.5°	774.9	773.6	782.7	804.7	810.8
140°	804.4	804.6	807.4	827.4	834.9
142.5°	829.6	832.6	832.0	848.5	853.9
145°	856.8	857.7	857.7	866.7	873.6
147.5°	878.0	881.2	880.4	882.6	888.7
150°	901.5	903.1	902.4	902.4	903.1
152.5°	919.8	922.1	920.5	922.1	921.3
155°	937.9	938.7	936.4	939.5	937.2
157.5°	953.8	953.8	950.8	954.6	950.8
160°	967.5	965.2	964.4	969.0	964.4
162.5°	979.6	976.6	975.8	980.3	975.0
165°	989.4	985.6	985.6	991.7	984.9
167.5°	997.8	994.0	993.2	1000.0	992.5
170°	1004.6	1000.0	1000.8	1006.8	999.3
172.5°	1009.1	1004.6	1005.3	1011.4	1003.1
175°	1012.1	1007.6	1008.4	1015.2	1006.1
177.5°	1014.4	1009.1	1010.6	1016.7	1007.6
180°	1012.1	1012.1	1012.1	1012.1	1012.1

(END OF REPORT)