

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: P1025016

Luminaire Tested: S124DIP-B1020D810UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1025016
REPORT IS A COMBINATION OF REPORTS P995406 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIP-B1020D810UB40-4F0-XX-W2A-D4
Description: Define 4 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

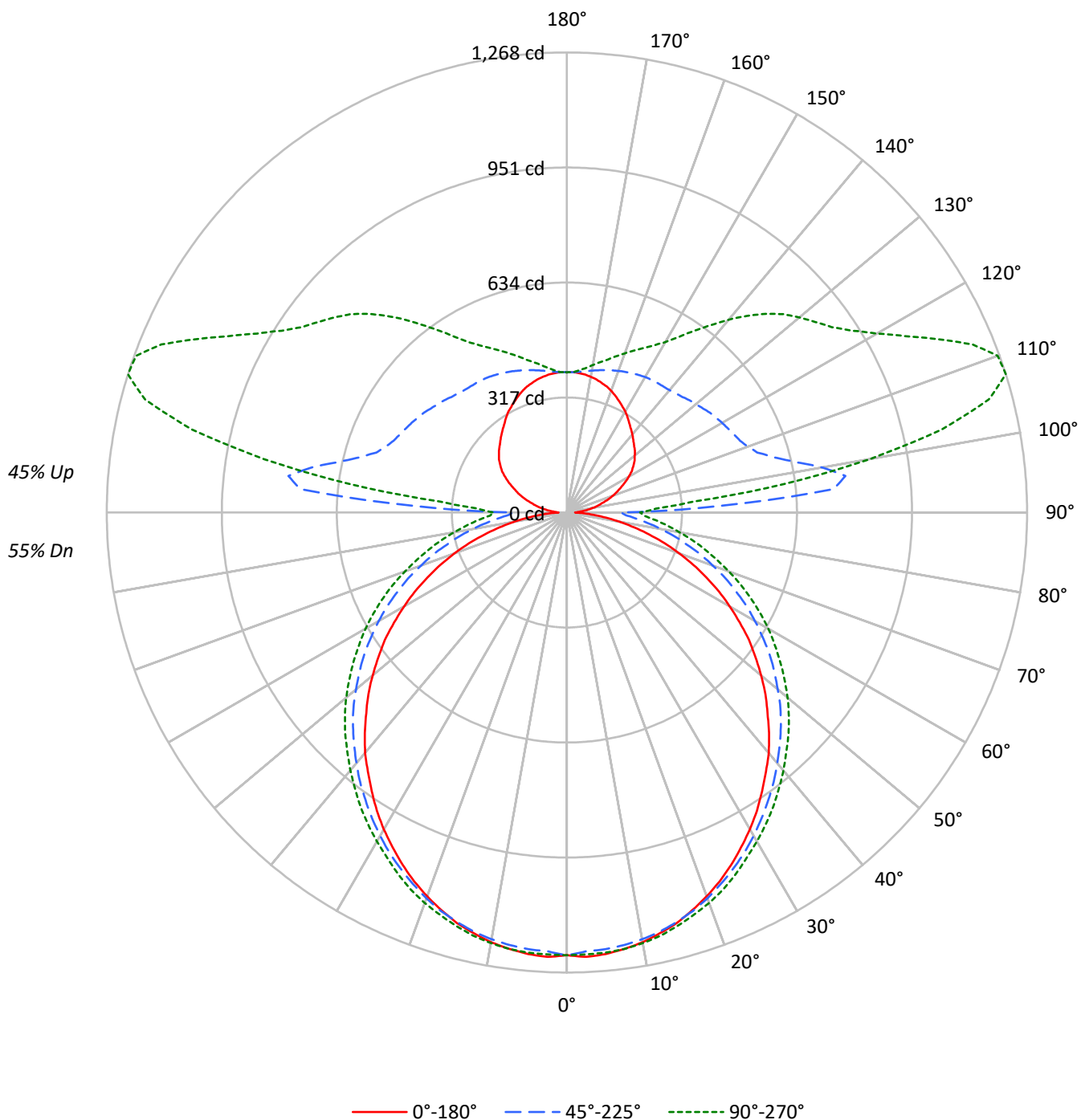
Lumens per Lamp: N/A
Luminaire Lumens: 6982.6 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P1025016

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-D4

Luminous Intensity Polar Plot



TEST NUMBER: P1025016

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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	101	101	101	101	86	86	86	73	73	73	61	61	61
1	98	93	89	85	91	86	83	79	74	71	69	63	60	59	52	51	49
2	89	81	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41
3	81	70	63	56	74	65	59	53	56	51	46	48	43	40	40	37	34
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25
6	62	49	41	35	57	46	38	33	40	34	29	34	29	25	28	25	22
7	57	45	36	30	53	42	34	29	36	30	26	31	26	22	26	22	19
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	16
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9952	9952	9952
5°	9979	9692	9710
10°	9915	9502	9475
15°	9822	9287	9209
20°	9684	9055	8951
25°	9530	8800	8673
30°	9362	8546	8390
35°	9172	8286	8137
40°	9020	8037	7876
45°	8795	7804	7644
50°	8604	7539	7400
55°	8405	7283	7120
60°	8097	6965	6856
65°	7759	6622	6538
70°	7349	6230	6169
75°	6775	5792	5820
80°	6128	5350	5453
85°	5268	4902	5156

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8795 cd/sqm

TEST NUMBER: P1025016

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.6	1.7
10°-20°	331.3	4.7
20°-30°	501.0	7.2
30°-40°	606.1	8.7
40°-50°	640.7	9.2
50°-60°	603.0	8.6
60°-70°	500.4	7.2
70°-80°	351.1	5.0
80°-90°	199.4	2.9
90°-100°	404.9	5.8
100°-110°	671.1	9.6
110°-120°	578.9	8.3
120°-130°	470.1	6.7
130°-140°	379.0	5.4
140°-150°	281.4	4.0
150°-160°	195.8	2.8
160°-170°	115.2	1.6
170°-180°	37.4	0.5
0°-30°	947.9	13.6
0°-40°	1554.0	22.3
0°-60°	2797.7	40.1
0°-90°	3848.7	55.1
90°-120°	1654.9	23.7
90°-150°	2785.5	39.9
90°-180°	3134.0	44.9
0°-180°	6982.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1222	1218	1208	1219	1218	116
15°	1171	1173	1168	1181	1179	330
25°	1072	1080	1084	1099	1100	494
35°	938	954	968	987	991	587
45°	782	808	834	857	864	604
55°	612	641	682	709	718	546
65°	424	467	514	548	559	420
75°	235	286	343	381	394	250
85°	72	130	191	232	246	75
90°	23	83	149	190	202	17
95°	43	142	738	462	353	42
105°	101	168	588	1197	1204	109
115°	165	217	508	948	1130	164
125°	223	263	480	790	891	199
135°	262	311	450	679	774	203
145°	300	342	436	552	611	188
155°	339	366	424	480	500	157
165°	370	381	406	430	436	104
175°	386	386	390	395	393	37
180°	386	386	386	386	386	

TEST NUMBER: P1025016

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1220.4	1220.4	1220.4	1220.4	1220.4
2.5°	1225.9	1221.8	1210.9	1220.4	1219.1
5°	1221.8	1217.7	1208.1	1219.1	1217.7
7.5°	1213.6	1210.9	1202.7	1215.0	1213.6
10°	1202.7	1201.3	1194.5	1206.8	1205.4
12.5°	1187.6	1187.6	1183.5	1194.5	1194.5
15°	1171.2	1172.6	1168.5	1180.8	1179.4
17.5°	1149.4	1153.5	1152.1	1164.4	1163.0
20°	1126.1	1130.2	1131.6	1145.3	1145.3
22.5°	1100.2	1105.6	1108.4	1122.0	1124.8
25°	1071.5	1079.7	1083.8	1098.8	1100.2
27.5°	1040.0	1052.3	1057.8	1071.5	1072.8
30°	1008.6	1019.5	1029.1	1044.1	1046.9
32.5°	974.4	988.1	999.0	1016.8	1019.5
35°	937.5	953.9	967.6	986.7	990.8
37.5°	900.6	919.8	936.2	955.3	959.4
40°	865.1	882.9	902.0	922.5	928.0
42.5°	824.1	844.6	867.8	891.1	895.2
45°	781.7	807.7	833.7	856.9	863.7
47.5°	742.1	768.1	798.1	821.4	829.6
50°	698.4	728.4	758.5	785.8	794.0
52.5°	654.6	684.7	720.2	747.6	755.8
55°	612.3	641.0	682.0	709.3	717.5
57.5°	564.4	600.0	639.6	672.4	679.2
60°	518.0	553.5	598.6	630.0	641.0
62.5°	472.9	512.5	557.6	589.0	600.0
65°	423.7	467.4	513.9	548.0	559.0
67.5°	377.2	423.7	472.9	507.0	518.0
70°	329.4	375.8	427.8	464.7	474.2
72.5°	282.9	330.7	386.8	422.3	433.2
75°	235.1	285.6	343.0	381.3	393.6
77.5°	190.0	243.3	303.4	341.7	355.3
80°	149.0	203.6	263.8	304.8	315.7
82.5°	108.0	165.4	225.5	267.9	280.2
85°	72.4	129.8	191.3	232.3	246.0
87.5°	45.1	101.1	161.3	200.9	213.2
90°	22.7	82.6	149.0	190.1	201.8
92.5°	31.1	126.8	424.7	263.7	245.4
95°	42.9	141.8	737.6	462.2	353.3
97.5°	58.2	143.3	774.1	773.2	604.8
100°	72.7	149.2	714.3	1006.3	846.5
102.5°	87.9	157.4	642.9	1148.4	1058.3
105°	101.1	168.3	588.2	1196.8	1203.5
107.5°	118.6	180.9	550.3	1172.8	1268.2
110°	134.6	192.2	530.4	1103.8	1262.9



TEST NUMBER: P1025016

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	150.1	204.8	516.7	1021.2	1209.9
115°	164.6	216.8	508.3	947.6	1129.6
117.5°	181.3	229.0	500.8	887.0	1052.1
120°	196.6	239.4	494.0	843.6	986.2
122.5°	211.8	250.8	486.3	813.6	932.4
125°	223.4	263.0	480.2	790.4	890.8
127.5°	235.5	276.6	471.7	766.6	862.8
130°	244.0	288.5	464.2	741.2	836.3
132.5°	253.9	300.0	457.9	712.4	809.0
135°	261.6	311.0	450.4	678.8	774.3
137.5°	270.7	319.1	444.9	644.6	734.9
140°	280.6	327.8	440.0	611.2	693.9
142.5°	289.9	335.8	437.3	581.0	650.6
145°	299.8	341.6	435.8	551.8	611.2
147.5°	311.2	348.5	433.5	526.4	573.9
150°	321.8	354.9	431.2	507.9	542.1
152.5°	330.3	361.0	427.4	493.5	519.3
155°	339.4	366.3	423.6	479.8	500.3
157.5°	348.5	371.2	419.8	466.9	482.8
160°	356.8	375.4	415.3	454.0	466.9
162.5°	364.4	378.8	410.7	441.4	451.7
165°	369.7	381.1	406.2	430.1	436.5
167.5°	375.8	383.0	401.6	420.2	424.4
170°	379.6	384.5	397.1	410.4	413.0
172.5°	383.4	385.6	392.5	401.6	401.6
175°	385.7	386.4	389.5	394.8	393.3
177.5°	387.2	386.4	387.2	389.8	387.2
180°	386.4	386.4	386.4	386.4	386.4

(END OF REPORT)