

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: P998602

Luminaire Tested: SA2XXDIP-B485D725UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998602
REPORT IS A COMBINATION OF REPORTS P984345 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D725UB40-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

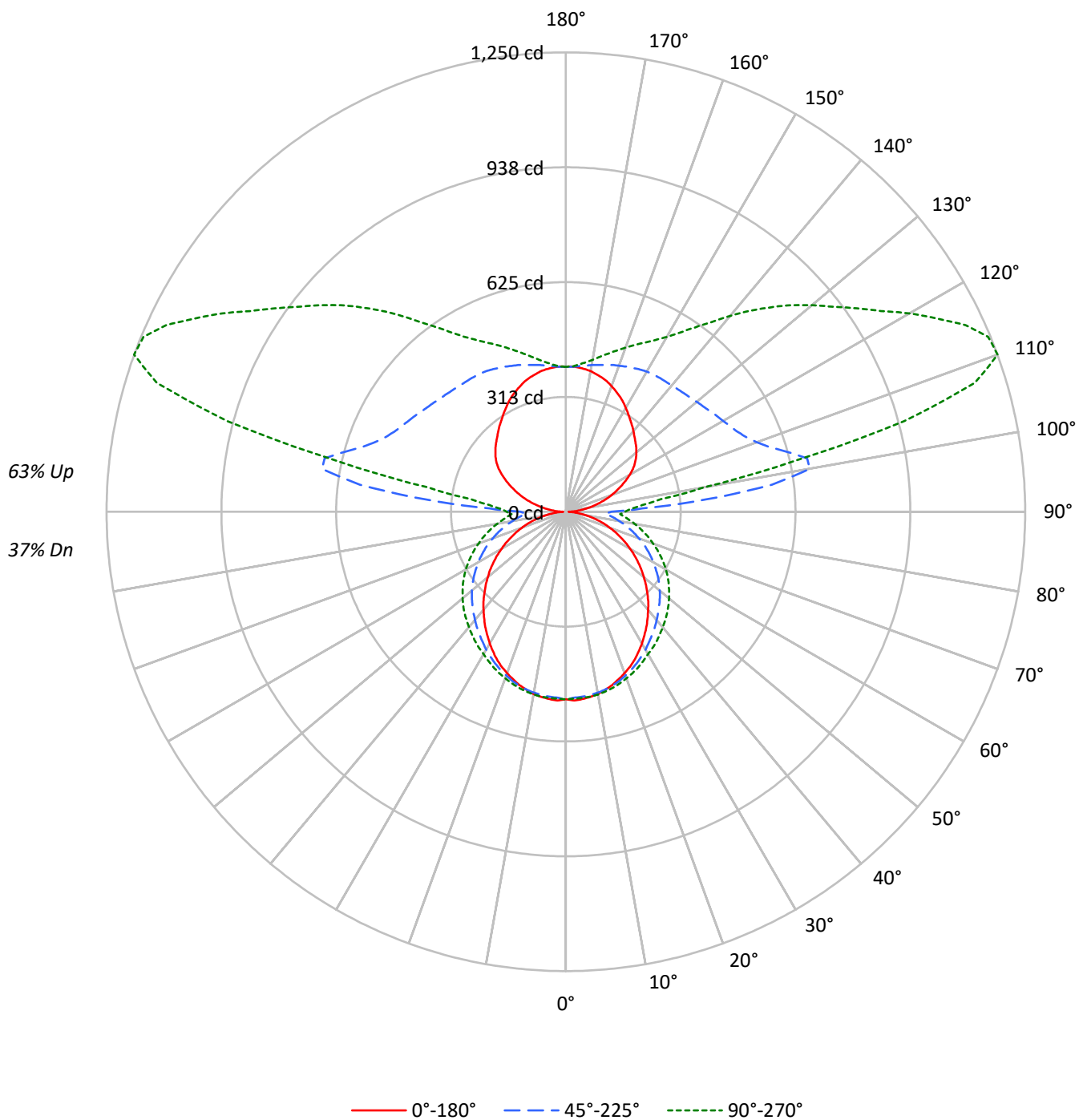
Lumens per Lamp: N/A
Luminaire Lumens: 4702.1 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 45.1
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	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37		
1	94	89	85	81	85	81	77	74	65	62	60	50	49	47	37	36	35	29		
2	85	77	71	65	76	70	64	60	56	52	49	44	41	38	32	30	29	23		
3	77	67	60	54	69	61	54	49	49	44	40	38	35	32	28	26	24	19		
4	70	59	51	45	63	54	47	41	43	38	34	34	30	27	25	22	20	16		
5	64	53	44	38	58	48	41	35	39	33	29	30	26	23	22	20	17	14		
6	59	47	39	33	53	43	35	30	35	29	25	27	23	20	20	17	15	12		
7	55	42	34	29	49	38	31	26	31	26	22	25	21	18	18	15	13	11		
8	51	38	30	25	46	35	28	23	28	23	19	22	18	16	17	14	12	9		
9	47	35	27	22	42	32	25	20	26	21	17	20	17	14	15	13	11	8		
10	44	32	25	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8078	8078	8078
5°	8113	7733	7689
10°	8059	7464	7356
15°	7946	7188	7014
20°	7802	6896	6690
25°	7660	6618	6395
30°	7461	6336	6104
35°	7260	6063	5891
40°	7049	5826	5678
45°	6849	5612	5493
50°	6631	5415	5310
55°	6403	5205	5125
60°	6127	4986	4929
65°	5837	4736	4704
70°	5509	4467	4462
75°	5091	4198	4232
80°	4431	3916	3996
85°	3757	3653	3791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6849 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	1.0
10°-20°	138.7	3.0
20°-30°	210.2	4.5
30°-40°	256.0	5.4
40°-50°	275.4	5.9
50°-60°	267.5	5.7
60°-70°	233.6	5.0
70°-80°	179.8	3.8
80°-90°	122.9	2.6
90°-100°	243.1	5.2
100°-110°	601.7	12.8
110°-120°	608.8	12.9
120°-130°	490.0	10.4
130°-140°	385.2	8.2
140°-150°	285.5	6.1
150°-160°	199.6	4.2
160°-170°	117.5	2.5
170°-180°	38.2	0.8
0°-30°	397.3	8.4
0°-40°	653.3	13.9
0°-60°	1196.2	25.4
0°-90°	1732.5	36.8
90°-120°	1453.7	30.9
90°-150°	2614.3	55.6
90°-180°	2970.0	63.2
0°-180°	4702.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	512	510	505	510	509	49
15°	488	490	490	496	496	137
25°	444	449	456	464	467	204
35°	382	395	409	425	430	239
45°	314	334	359	382	390	242
55°	240	267	305	332	342	215
65°	164	200	244	274	284	163
75°	91	132	180	212	221	96
85°	27	72	120	151	161	28
90°	8	61	123	152	161	7
95°	32	106	383	225	209	32
105°	96	165	626	1095	953	103
115°	166	217	515	1038	1201	165
125°	229	271	478	832	965	204
135°	268	320	455	685	787	207
145°	305	351	445	557	612	192
155°	347	375	432	489	508	160
165°	378	390	414	439	446	107
175°	394	394	398	403	402	37
180°	395	395	395	395	395	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.3	510.3	510.3	510.3	510.3
2.5°	514.0	511.7	506.6	510.3	508.8
5°	511.7	509.5	505.1	509.5	508.8
7.5°	508.0	506.6	502.9	508.0	507.3
10°	503.6	502.1	499.9	505.8	505.1
12.5°	496.2	497.0	495.5	501.4	500.7
15°	488.1	489.6	489.6	496.2	495.5
17.5°	477.7	480.7	482.9	489.6	489.6
20°	467.4	471.1	474.0	482.2	482.2
22.5°	456.3	460.7	465.2	473.3	474.8
25°	443.7	448.9	455.5	464.4	466.6
27.5°	428.9	437.1	444.4	455.5	457.0
30°	414.1	423.7	433.4	445.2	447.4
32.5°	397.9	409.0	420.8	434.8	439.3
35°	382.3	394.9	409.0	425.2	430.4
37.5°	365.3	379.4	397.1	414.9	420.0
40°	348.3	364.6	384.5	403.8	410.4
42.5°	332.0	348.3	372.0	393.4	400.1
45°	313.6	333.5	359.4	382.3	389.7
47.5°	295.8	317.3	346.8	370.5	378.6
50°	277.3	300.2	333.5	358.7	366.8
52.5°	259.6	284.0	319.5	345.4	354.2
55°	240.3	267.0	305.4	332.0	341.7
57.5°	221.9	251.4	289.9	318.7	328.3
60°	201.9	233.7	275.8	303.9	314.3
62.5°	184.1	217.4	259.6	289.9	299.5
65°	164.2	200.4	244.0	274.4	284.0
67.5°	146.4	184.1	228.5	258.8	269.2
70°	127.2	165.7	211.5	243.3	252.2
72.5°	109.4	149.4	196.0	227.0	238.1
75°	91.0	132.4	179.7	211.5	221.1
77.5°	73.2	116.1	164.2	196.0	206.3
80°	55.5	100.6	148.6	179.7	190.1
82.5°	40.7	85.0	133.9	164.9	174.5
85°	26.6	72.5	119.8	150.9	161.2
87.5°	16.3	60.6	108.0	138.3	147.9
90°	8.2	60.6	123.4	151.9	161.2
92.5°	18.1	81.9	207.9	173.7	175.0
95°	32.5	106.0	382.6	225.4	208.6
97.5°	44.7	123.2	565.1	332.7	261.1
100°	63.7	138.0	673.8	550.4	381.2
102.5°	80.3	151.8	672.4	854.6	633.5
105°	96.3	164.8	626.2	1095.2	953.3
107.5°	114.6	177.8	583.0	1178.4	1166.8
110°	132.1	191.2	552.8	1158.0	1250.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	148.8	204.6	530.9	1104.0	1243.8
115°	166.2	217.2	515.1	1038.1	1200.7
117.5°	183.7	230.6	503.9	975.5	1138.6
120°	200.4	243.6	494.1	918.4	1079.5
122.5°	216.3	257.7	486.6	873.4	1016.6
125°	229.3	271.0	477.6	832.0	965.2
127.5°	240.7	284.3	470.9	795.4	916.0
130°	250.5	296.8	465.0	759.0	874.3
132.5°	259.6	309.0	459.8	721.6	832.0
135°	268.0	319.6	455.3	685.0	786.6
137.5°	276.3	328.7	451.6	647.9	741.9
140°	286.2	336.4	447.9	614.6	695.7
142.5°	296.0	343.2	446.4	583.3	650.4
145°	305.2	350.8	444.9	556.7	612.5
147.5°	315.8	356.8	442.6	533.7	577.8
150°	326.5	363.0	440.4	516.3	548.9
152.5°	337.1	369.0	436.6	502.2	526.9
155°	347.0	374.7	432.0	488.6	507.9
157.5°	355.3	379.2	427.5	475.7	491.2
160°	363.7	383.8	422.9	462.8	475.3
162.5°	372.0	387.2	419.1	450.6	460.1
165°	378.1	389.5	413.8	438.8	445.7
167.5°	383.4	391.8	409.2	428.2	432.0
170°	388.7	393.0	405.4	418.4	419.9
172.5°	391.8	394.0	400.9	409.6	410.0
175°	394.1	394.5	397.8	402.8	401.6
177.5°	395.6	394.8	394.8	397.8	395.6
180°	394.8	394.8	394.8	394.8	394.8

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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	11.13	11.92	12.18	12.98	14.42	14.20	14.99	15.26	16.06	17.50
	3H	12.59	13.30	13.65	14.37	15.83	16.79	17.50	17.85	18.57	20.03
	4H	13.06	13.73	14.13	14.81	16.28	18.04	18.72	19.11	19.79	21.26
	6H	13.34	13.96	14.42	15.04	16.52	19.33	19.96	20.41	21.04	22.52
	8H	13.40	13.99	14.48	15.09	16.56	19.99	20.59	21.08	21.68	23.16
	12H	13.41	13.98	14.50	15.07	16.56	20.71	21.28	21.80	22.37	23.87
4H	2H	12.17	12.85	13.25	13.92	15.39	14.53	15.20	15.61	16.28	17.75
	3H	13.87	14.45	14.96	15.55	17.03	17.31	17.88	18.40	18.98	20.47
	4H	14.49	15.02	15.59	16.11	17.61	18.73	19.25	19.82	20.34	21.85
	6H	14.91	15.36	16.00	16.48	17.97	20.19	20.65	21.29	21.76	23.26
	8H	15.01	15.44	16.11	16.55	18.06	20.95	21.37	22.05	22.48	23.99
	12H	15.05	15.44	16.17	16.56	18.08	21.77	22.16	22.89	23.28	24.80
8H	4H	15.28	15.71	16.38	16.81	18.32	18.86	19.29	19.96	20.40	21.91
	6H	15.91	16.27	17.03	17.41	18.92	20.49	20.85	21.61	22.00	23.50
	8H	16.13	16.45	17.26	17.57	19.10	21.38	21.70	22.51	22.82	24.35
	12H	16.26	16.54	17.39	17.66	19.23	22.37	22.65	23.50	23.78	25.34
12H	4H	15.47	15.86	16.59	16.98	18.50	18.84	19.23	19.95	20.34	21.86
	6H	16.24	16.56	17.37	17.69	19.21	20.52	20.83	21.64	21.96	23.49
	8H	16.54	16.82	17.67	17.95	19.51	21.44	21.72	22.57	22.85	24.41