

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: P644762

Luminaire Tested: OMN4DIP-SR4F0-125D25U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644762
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-125D25U840-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

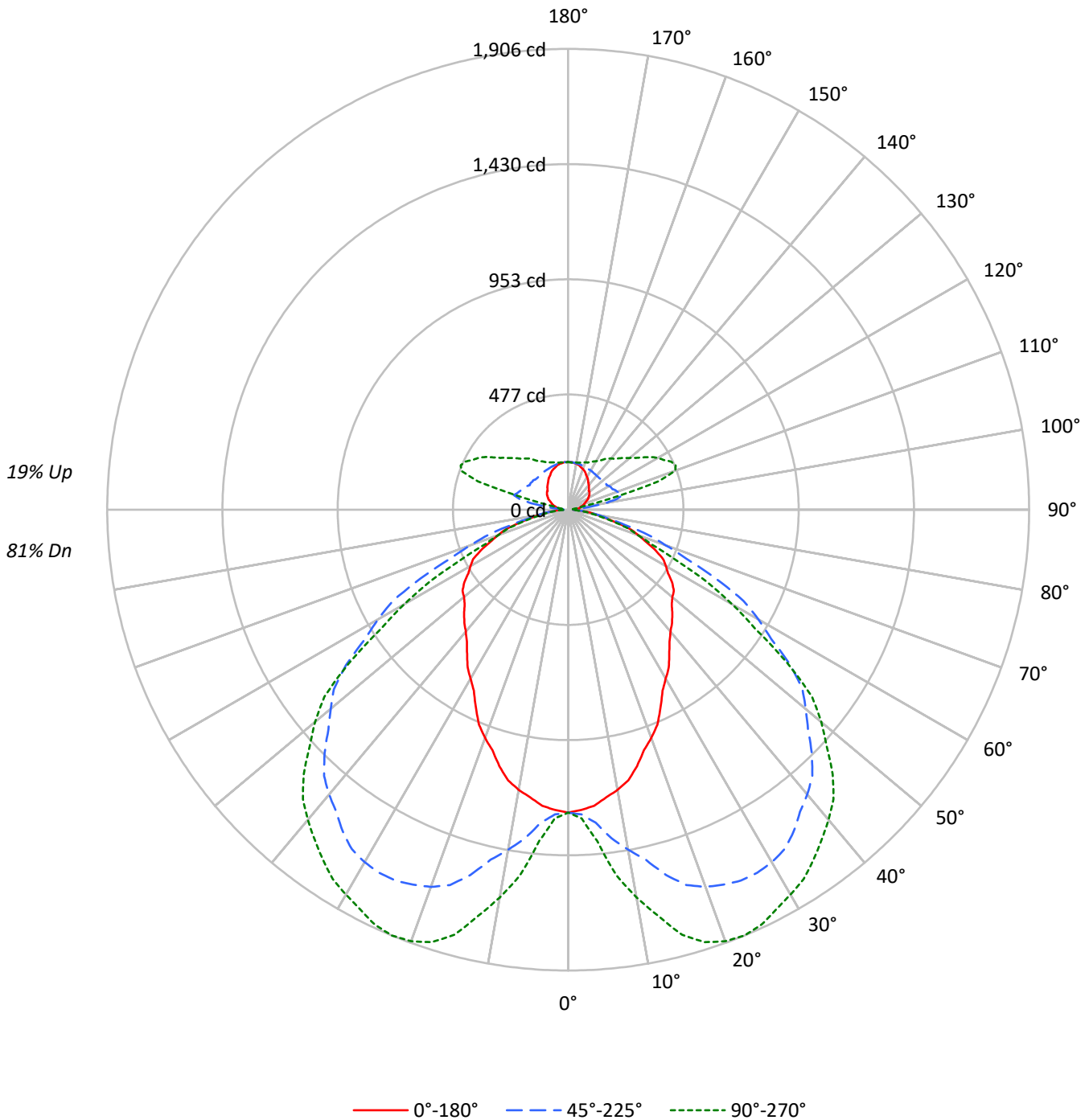
Lumens per Lamp: N/A
Luminaire Lumens: 5902.4 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 48.3
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	0
RCR																		
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	81
1	105	101	97	93	100	96	93	90	89	86	84	82	80	78	75	74	72	69
2	96	88	81	76	91	84	79	74	78	73	69	72	68	65	66	63	61	58
3	87	77	69	63	83	74	67	61	69	63	58	63	59	55	59	55	52	49
4	80	68	60	53	76	66	58	52	61	54	49	56	51	47	52	48	44	41
5	73	61	52	46	70	59	51	45	54	48	42	50	45	40	47	42	38	36
6	67	54	46	40	64	53	44	39	49	42	37	45	40	35	42	37	33	31
7	62	49	41	35	59	47	40	34	44	37	32	41	35	31	38	33	29	27
8	58	45	36	31	55	43	35	30	40	34	29	38	32	27	35	30	26	24
9	54	41	33	27	51	39	32	27	37	30	26	35	29	25	32	27	24	22
10	50	37	30	25	48	36	29	24	34	28	23	32	26	22	30	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20221	20221	20221
5°	19921	21052	22280
10°	19290	23397	26693
15°	18354	26143	30427
20°	17265	28524	32627
25°	16085	30145	33726
30°	15040	31385	34263
35°	14351	32031	34846
40°	13873	32412	35297
45°	13899	32520	35312
50°	14119	32189	34309
55°	14756	31564	31153
60°	15048	29343	25297
65°	15244	25704	18583
70°	14573	20209	14436
75°	13082	15078	12171
80°	11102	11911	9744
85°	10782	9707	8096

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 35312 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	2.2
10°-20°	426.8	7.2
20°-30°	709.1	12.0
30°-40°	894.5	15.2
40°-50°	956.3	16.2
50°-60°	844.0	14.3
60°-70°	541.7	9.2
70°-80°	240.2	4.1
80°-90°	62.7	1.1
90°-100°	40.6	0.7
100°-110°	183.1	3.1
110°-120°	242.3	4.1
120°-130°	195.8	3.3
130°-140°	153.9	2.6
140°-150°	120.9	2.0
150°-160°	88.4	1.5
160°-170°	54.9	0.9
170°-180°	18.7	0.3
0°-30°	1264.4	21.4
0°-40°	2158.9	36.6
0°-60°	3959.2	67.1
0°-90°	4803.8	81.4
90°-120°	465.9	7.9
90°-150°	936.6	15.9
90°-180°	1099.0	18.6
0°-180°	5902.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1229	1266	1299	1343	1375	115
15°	1098	1266	1564	1752	1820	308
25°	903	1225	1692	1850	1893	415
35°	728	1118	1625	1731	1768	457
45°	609	956	1424	1512	1546	470
55°	524	752	1121	1127	1107	465
65°	399	504	673	546	486	390
75°	210	232	242	206	195	224
85°	58	50	52	46	44	62
90°	20	22	20	21	15	14
95°	42	39	24	20	20	35
105°	59	76	233	289	190	63
115°	83	94	202	405	470	83
125°	107	120	191	321	377	95
135°	121	135	183	262	301	94
145°	144	156	185	228	253	90
155°	168	175	188	207	217	77
165°	187	190	193	198	202	53
175°	197	198	197	196	194	19
180°	197	197	197	197	197	



TEST NUMBER: P644762

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1252.4	1252.4	1252.4	1252.4	1252.4
2.5°	1243.0	1261.3	1261.7	1268.9	1278.0
5°	1229.1	1266.1	1298.9	1343.3	1374.7
7.5°	1199.9	1266.0	1371.2	1474.3	1525.5
10°	1176.6	1267.8	1427.1	1565.4	1628.1
12.5°	1146.3	1267.1	1483.0	1649.5	1721.3
15°	1098.0	1266.0	1564.0	1751.9	1820.3
17.5°	1042.1	1260.8	1627.5	1815.8	1875.6
20°	1004.8	1255.4	1660.1	1839.1	1898.9
22.5°	962.9	1243.1	1678.7	1850.7	1905.9
25°	902.9	1224.6	1692.1	1850.4	1893.1
27.5°	844.0	1198.3	1692.7	1826.9	1863.4
30°	806.7	1177.0	1683.4	1803.6	1837.8
32.5°	774.1	1153.4	1664.8	1775.7	1812.1
35°	728.1	1118.2	1625.1	1730.8	1767.9
37.5°	688.5	1078.1	1575.0	1678.0	1721.3
40°	658.2	1045.5	1537.8	1640.5	1674.7
42.5°	634.9	1010.8	1493.5	1593.8	1623.4
45°	608.7	956.1	1424.2	1512.3	1546.5
47.5°	580.7	899.7	1344.4	1427.6	1449.8
50°	562.1	858.3	1281.5	1357.4	1365.9
52.5°	550.5	814.7	1220.9	1268.7	1270.4
55°	524.2	752.1	1121.3	1126.7	1106.7
57.5°	489.3	678.9	994.9	966.4	918.6
60°	466.0	628.3	908.7	851.8	783.4
62.5°	442.7	580.0	817.8	725.7	646.0
65°	399.0	504.4	672.8	546.2	486.4
67.5°	348.3	421.2	528.3	408.6	368.7
70°	308.7	365.7	428.1	334.3	305.8
72.5°	271.4	310.2	346.6	276.3	261.5
75°	209.7	232.5	241.7	206.5	195.1
77.5°	154.4	155.5	167.8	145.5	139.8
80°	119.4	113.7	128.1	110.5	104.8
82.5°	91.5	83.5	93.2	80.3	76.9
85°	58.2	49.7	52.4	46.5	43.7
87.5°	34.4	27.8	27.3	25.1	21.7
90°	20.4	21.6	20.0	21.1	15.4
92.5°	30.4	24.7	20.6	20.4	15.7
95°	41.9	39.0	24.5	19.9	19.5
97.5°	46.1	55.3	83.9	27.3	21.5
100°	49.8	61.8	154.9	48.8	31.4
102.5°	53.4	68.7	206.5	117.0	62.8
105°	58.8	76.5	233.0	289.3	189.6
107.5°	67.1	77.5	222.8	419.8	390.5
110°	70.8	82.4	216.9	441.0	470.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	76.7	88.4	210.9	428.6	480.7
115°	82.7	94.4	202.0	404.6	469.6
117.5°	91.3	103.3	199.8	378.6	445.6
120°	95.9	109.2	195.8	358.9	428.7
122.5°	100.9	112.9	188.5	341.9	405.9
125°	106.6	119.9	190.9	321.4	376.7
127.5°	110.9	126.7	188.2	297.0	352.1
130°	114.9	129.4	189.2	278.8	333.3
132.5°	115.2	129.7	184.5	271.6	316.4
135°	121.4	134.8	183.4	262.3	301.1
137.5°	127.6	141.9	183.4	252.0	285.2
140°	132.6	145.9	183.4	246.0	276.3
142.5°	137.5	149.9	184.4	239.0	267.4
145°	143.7	155.8	184.6	228.5	252.8
147.5°	151.2	161.8	186.1	221.0	239.6
150°	156.1	165.8	187.1	216.0	231.7
152.5°	161.1	169.8	187.1	211.9	224.8
155°	168.5	174.6	188.3	207.1	216.8
157.5°	174.5	180.3	189.8	204.1	211.1
160°	178.4	183.3	190.8	202.1	208.2
162.5°	181.4	186.2	191.8	201.1	205.2
165°	187.1	189.5	193.3	198.3	202.0
167.5°	190.3	192.5	194.5	197.1	199.2
170°	193.3	194.5	194.5	197.0	198.2
172.5°	194.3	196.5	195.5	196.0	197.3
175°	197.0	198.2	197.0	195.7	194.5
177.5°	197.0	198.0	197.0	197.0	196.0
180°	197.0	197.0	197.0	197.0	197.0

(END OF REPORT)