

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: P644636

Luminaire Tested: OMN4DIP-SR4F0-100D75U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644636
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D75U830-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

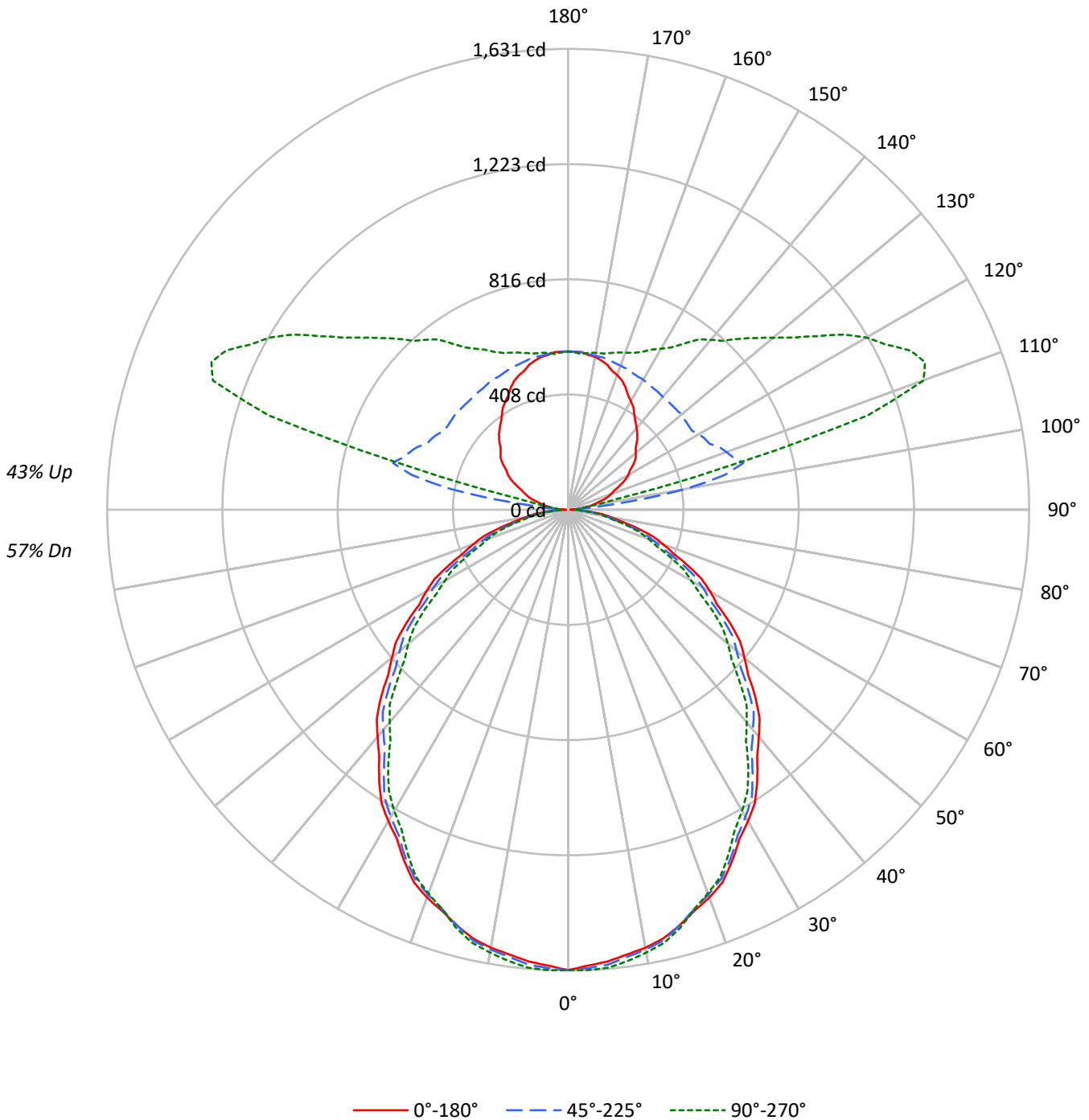
Lumens per Lamp: N/A
Luminaire Lumens: 6982.1 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.7
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										
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	50	30	10	50	30	10	0														
RCR																																						
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57																				
1	99	95	91	88	92	89	85	82	76	74	72	65	64	62	55	54	53	48																				
2	91	83	77	72	84	78	72	68	67	63	60	58	55	52	49	46	45	40																				
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34																				
4	76	65	57	51	70	61	54	48	53	47	43	46	41	38	39	36	33	29																				
5	70	58	50	44	65	54	47	41	47	42	37	41	36	33	35	32	29	26																				
6	64	52	44	38	60	49	42	36	43	37	33	37	32	29	32	28	25	23																				
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	25	23	20																				
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	27	23	20	18																				
9	51	39	32	27	48	37	30	25	33	27	23	29	24	21	25	21	18	16																				
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26305	26305	26305
5°	26010	26190	26370
10°	25802	25911	26093
15°	25454	25454	25603
20°	25098	24909	24831
25°	24444	24246	23931
30°	23720	23390	22935
35°	22980	22413	21888
40°	22099	21444	20698
45°	21359	20548	19536
50°	20434	19542	18540
55°	19654	18657	17534
60°	18755	17751	16249
65°	17784	16512	15244
70°	16848	15276	14233
75°	15764	13967	13275
80°	14431	12775	12162
85°	13542	11912	11078

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.3	2.2
10°-20°	430.1	6.2
20°-30°	625.3	9.0
30°-40°	711.3	10.2
40°-50°	693.5	9.9
50°-60°	592.0	8.5
60°-70°	430.2	6.2
70°-80°	243.3	3.5
80°-90°	76.2	1.1
90°-100°	78.3	1.1
100°-110°	495.7	7.1
110°-120°	669.0	9.6
120°-130°	543.8	7.8
130°-140°	436.0	6.2
140°-150°	343.6	4.9
150°-160°	251.2	3.6
160°-170°	156.1	2.2
170°-180°	53.2	0.8
0°-30°	1208.7	17.3
0°-40°	1920.0	27.5
0°-60°	3205.5	45.9
0°-90°	3955.2	56.6
90°-120°	1243.0	17.8
90°-150°	2566.4	36.8
90°-180°	3027.0	43.4
0°-180°	6982.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1629	1629	1629	1629	1629	
5°	1605	1629	1616	1614	1627	152
15°	1523	1542	1523	1521	1532	429
25°	1372	1385	1361	1337	1343	631
35°	1166	1170	1137	1110	1110	728
45°	935	931	900	869	856	720
55°	698	696	663	632	623	623
65°	466	461	432	406	399	462
75°	253	244	224	215	213	268
85°	73	64	64	62	60	78
90°	9	14	20	22	22	10
95°	46	61	35	38	43	45
105°	120	174	642	816	539	128
115°	200	239	551	1142	1334	200
125°	283	320	520	905	1070	251
135°	345	383	521	745	856	266
145°	408	443	525	649	718	257
155°	479	496	535	589	616	220
165°	532	538	549	564	574	149
175°	560	563	560	556	553	53
180°	560	560	560	560	560	

TEST NUMBER: P644636

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1629.2	1629.2	1629.2	1629.2	1629.2
2.5°	1615.0	1635.8	1623.9	1624.0	1631.0
5°	1604.8	1628.7	1615.9	1614.0	1627.0
7.5°	1588.0	1611.4	1596.4	1594.1	1611.0
10°	1573.8	1595.5	1580.4	1576.4	1591.5
12.5°	1554.3	1576.0	1560.9	1555.1	1570.2
15°	1522.8	1542.3	1522.8	1520.8	1531.7
17.5°	1487.3	1504.2	1481.6	1474.2	1482.5
20°	1460.7	1475.9	1449.7	1438.7	1445.2
22.5°	1427.1	1442.2	1414.2	1398.0	1406.2
25°	1372.1	1385.1	1361.0	1336.8	1343.3
27.5°	1313.1	1323.1	1298.9	1274.2	1276.3
30°	1272.3	1278.8	1254.6	1228.1	1230.2
32.5°	1229.8	1234.5	1208.5	1180.1	1180.6
35°	1165.9	1170.3	1137.1	1110.5	1110.5
37.5°	1098.1	1100.7	1065.3	1036.4	1033.4
40°	1048.5	1052.8	1017.4	988.5	982.0
42.5°	1002.4	1003.2	971.3	942.3	934.1
45°	935.4	931.1	899.9	868.6	855.6
47.5°	863.1	863.1	827.7	796.4	784.2
50°	813.5	813.5	778.0	746.8	738.1
52.5°	767.4	765.7	731.9	700.6	688.5
55°	698.2	696.1	662.8	631.5	622.9
57.5°	625.1	625.1	594.1	560.6	551.0
60°	580.8	580.8	549.7	516.2	503.2
62.5°	532.9	531.1	500.1	470.2	462.4
65°	465.5	461.2	432.2	405.5	399.0
67.5°	401.2	396.9	366.2	344.8	340.5
70°	356.9	352.5	323.6	305.8	301.5
72.5°	314.3	308.2	282.8	268.6	264.2
75°	252.7	244.0	223.9	215.0	212.8
77.5°	194.2	179.4	171.1	164.9	162.7
80°	155.2	142.2	137.4	132.9	130.8
82.5°	121.5	108.5	107.3	104.6	102.4
85°	73.1	64.5	64.3	62.0	59.8
87.5°	31.9	27.8	28.9	29.2	29.2
90°	8.9	14.5	20.3	21.6	21.6
92.5°	24.4	23.1	25.2	31.2	32.2
95°	45.9	61.3	34.8	38.4	43.2
97.5°	65.5	109.3	213.2	65.0	55.0
100°	82.4	134.4	419.9	124.5	83.2
102.5°	97.5	152.3	566.3	324.9	177.2
105°	120.2	174.4	641.7	816.2	538.6
107.5°	145.1	185.3	612.8	1186.9	1109.7
110°	160.3	199.4	595.9	1247.0	1337.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	177.2	216.3	579.0	1211.9	1366.0
115°	200.3	239.4	551.4	1141.5	1334.3
117.5°	226.3	264.8	545.1	1067.7	1266.0
120°	246.0	281.7	533.8	1011.6	1218.1
122.5°	258.4	298.5	519.7	963.3	1153.3
125°	282.6	320.4	519.7	905.0	1070.3
127.5°	300.8	341.1	520.4	837.4	1000.5
130°	312.0	353.3	523.3	792.1	947.0
132.5°	324.3	365.6	521.5	771.8	899.2
135°	345.0	382.9	521.0	745.3	855.5
137.5°	362.6	403.2	521.0	716.1	810.4
140°	376.7	414.6	521.0	699.0	785.1
142.5°	390.8	425.9	523.9	679.2	759.7
145°	408.4	442.8	524.6	649.4	718.2
147.5°	429.5	459.8	528.8	627.9	680.9
150°	443.6	471.1	531.6	613.6	658.3
152.5°	457.7	482.5	531.6	602.1	638.6
155°	478.8	496.0	535.1	588.6	616.1
157.5°	495.7	512.2	539.4	579.9	599.9
160°	507.0	520.7	542.2	574.2	591.5
162.5°	515.4	529.2	545.0	571.3	583.0
165°	531.6	538.5	549.2	563.5	573.9
167.5°	540.8	547.0	552.7	559.9	566.1
170°	549.2	552.7	552.7	559.9	563.3
172.5°	552.0	558.2	555.5	557.0	560.5
175°	559.8	563.2	559.8	556.2	552.7
177.5°	559.8	562.5	559.8	559.7	557.0
180°	559.8	559.8	559.8	559.8	559.8

(END OF REPORT)