

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: P644747

Luminaire Tested: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644747
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

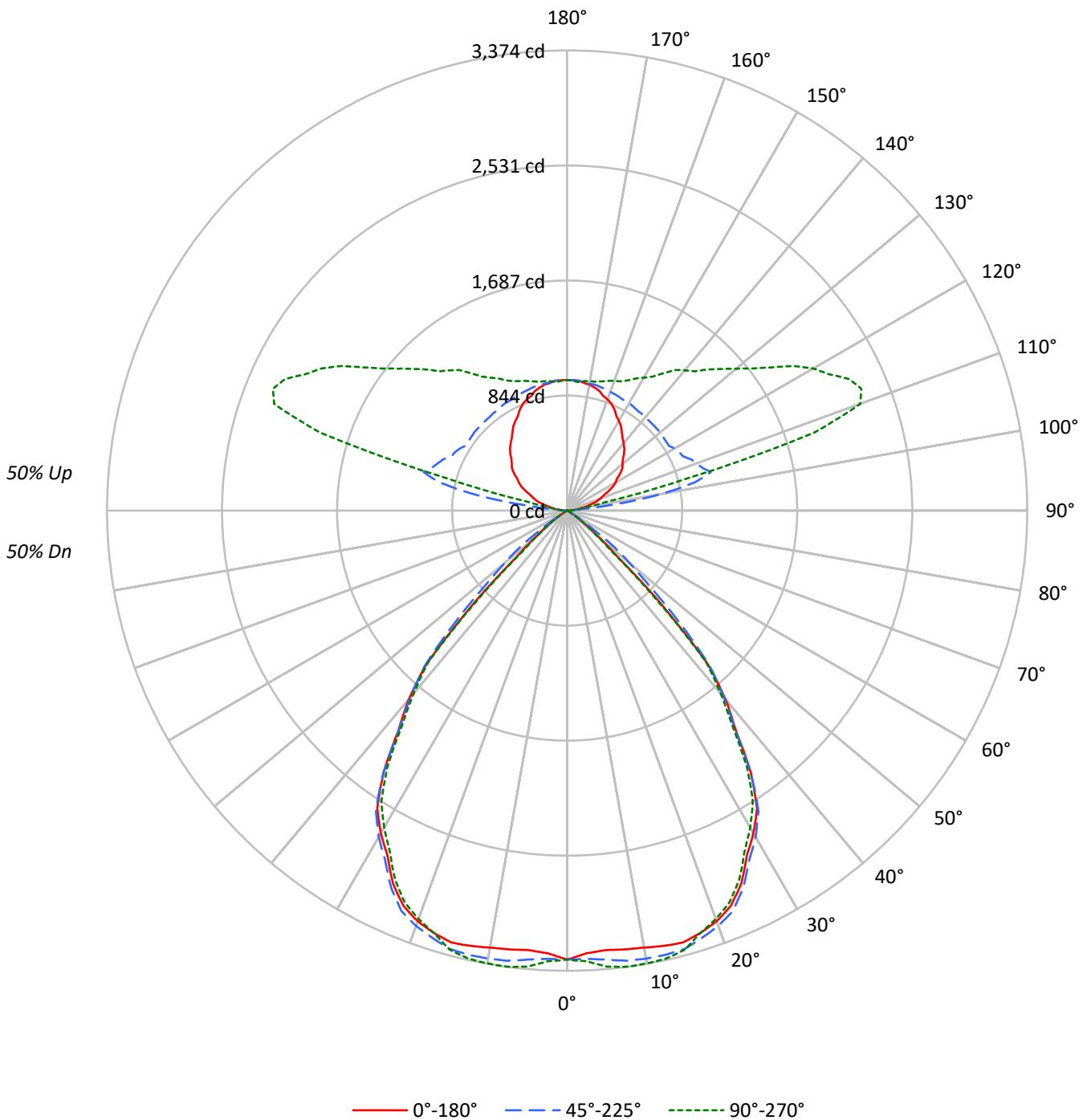
Lumens per Lamp: N/A
Luminaire Lumens: 10198.7 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 98.1
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

TEST NUMBER: P644747

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644747

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50																				
1	100	96	93	90	92	89	86	84	76	74	72	63	62	61	52	52	51	46																				
2	92	86	81	77	85	80	76	72	69	66	63	58	56	54	49	47	46	42																				
3	86	78	72	67	79	73	67	63	63	59	56	53	51	49	45	43	42	38																				
4	80	70	64	58	74	66	60	55	57	53	49	49	46	43	42	40	38	34																				
5	74	64	57	52	68	60	54	49	52	48	44	45	42	39	39	36	34	31																				
6	69	58	51	46	64	55	48	44	48	43	40	42	38	35	36	33	31	29																				
7	64	53	46	41	59	50	44	39	44	39	36	38	35	32	33	31	29	26																				
8	60	49	42	37	56	46	40	35	41	36	32	36	32	29	31	28	26	24																				
9	56	45	38	34	52	42	36	32	38	33	29	33	29	27	29	26	24	22																				
10	52	41	35	30	49	39	33	29	35	30	27	31	27	25	27	24	22	20																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42519	42519	42519
5°	41949	42848	43514
10°	42669	43748	44219
15°	43847	44501	44569
20°	44047	44542	43799
25°	43033	43509	42557
30°	40742	41201	40014
35°	37035	37035	36266
40°	30460	30157	29508
45°	18212	21405	17368
50°	5886	11928	5526
55°	2083	3993	2083
60°	132	1129	67
65°	79	79	0
70°	98	0	0
75°	0	0	0
80°	0	0	0
85°	385	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21405 cd/sqm



TEST NUMBER: P644747

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.7	3.1
10°-20°	937.1	9.2
20°-30°	1386.8	13.6
30°-40°	1433.4	14.1
40°-50°	834.0	8.2
50°-60°	141.3	1.4
60°-70°	5.6	0.1
70°-80°	0.8	0.0
80°-90°	2.9	0.0
90°-100°	117.7	1.2
100°-110°	838.3	8.2
110°-120°	1138.2	11.2
120°-130°	926.4	9.1
130°-140°	745.1	7.3
140°-150°	587.4	5.8
150°-160°	429.5	4.2
160°-170°	266.8	2.6
170°-180°	91.0	0.9
0°-30°	2640.5	25.9
0°-40°	4073.9	39.9
0°-60°	5049.2	49.5
0°-90°	5058.5	49.6
90°-120°	2094.2	20.5
90°-150°	4353.0	42.7
90°-180°	5140.0	50.4
0°-180°	10198.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3292	3292	3292	3292	3292	
5°	3235	3321	3305	3313	3356	310
15°	3279	3394	3328	3310	3333	922
25°	3019	3120	3053	2961	2986	1379
35°	2349	2386	2349	2290	2300	1439
45°	997	1160	1172	1132	951	771
55°	92	108	177	100	92	102
65°	3	3	3	0	0	3
75°	0	2	0	0	0	1
85°	3	3	0	0	0	1
90°	0	6	12	18	18	2
95°	48	89	48	54	66	54
105°	187	287	1089	1392	921	197
115°	331	402	939	1951	2281	329
125°	475	540	885	1547	1830	422
135°	590	654	891	1274	1462	454
145°	698	757	897	1110	1228	438
155°	818	848	915	1006	1053	376
165°	909	920	939	963	981	255
175°	957	963	957	951	945	90
180°	957	957	957	957	957	



TEST NUMBER: P644747

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3291.8	3291.8	3291.8	3291.8	3291.8
2.5°	3248.6	3312.9	3289.7	3292.2	3308.2
5°	3235.3	3320.7	3304.6	3313.3	3356.0
7.5°	3245.0	3331.5	3329.3	3331.8	3373.5
10°	3253.2	3343.7	3335.5	3333.8	3371.4
12.5°	3269.7	3368.2	3335.5	3331.6	3363.2
15°	3278.9	3394.5	3327.8	3310.3	3332.9
17.5°	3247.6	3376.2	3285.6	3239.1	3248.1
20°	3204.4	3335.1	3240.4	3171.4	3186.4
22.5°	3136.6	3261.2	3176.7	3091.3	3110.4
25°	3019.4	3119.9	3052.8	2960.9	2986.0
27.5°	2852.9	2932.3	2889.9	2800.8	2816.4
30°	2731.6	2796.9	2762.4	2675.2	2682.8
32.5°	2591.8	2647.1	2610.3	2535.3	2534.8
35°	2348.7	2386.4	2348.7	2289.8	2299.9
37.5°	2030.6	2059.2	2020.8	1985.5	1990.5
40°	1806.5	1829.1	1788.5	1755.0	1750.0
42.5°	1526.9	1589.7	1550.0	1504.5	1511.5
45°	997.0	1160.4	1171.8	1131.7	950.8
47.5°	502.6	681.0	815.6	618.9	443.5
50°	292.9	401.0	593.6	327.7	275.0
52.5°	192.2	237.9	414.7	207.1	182.4
55°	92.5	107.6	177.3	100.0	92.5
57.5°	31.9	48.9	78.6	50.0	35.5
60°	5.1	20.2	43.7	15.1	2.6
62.5°	3.1	6.1	27.2	3.0	0.5
65°	2.6	2.6	2.6	0.0	0.0
67.5°	2.6	2.6	0.0	0.0	0.0
70°	2.6	2.6	0.0	0.0	0.0
72.5°	2.6	2.6	0.0	0.0	0.0
75°	0.0	2.5	0.0	0.0	0.0
77.5°	0.0	2.5	0.0	0.0	0.0
80°	0.0	2.5	0.0	0.0	0.0
82.5°	0.0	2.5	0.0	0.0	0.0
85°	2.6	2.6	0.0	0.0	0.0
87.5°	2.1	3.2	2.4	3.6	3.6
90°	0.0	5.9	12.0	18.1	18.1
92.5°	14.4	20.3	26.5	37.4	42.1
95°	48.1	89.3	48.1	54.4	66.2
97.5°	85.5	171.4	353.9	104.4	90.3
100°	114.3	214.4	710.2	209.0	138.4
102.5°	143.2	248.0	960.5	551.6	302.1
105°	186.6	286.6	1089.3	1391.5	920.8
107.5°	229.9	305.2	1039.9	2025.2	1896.9
110°	258.8	329.4	1011.1	2128.0	2286.9



TEST NUMBER: P644747

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U940-BBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	287.7	358.3	982.2	2067.9	2335.1
115°	331.0	401.6	938.8	1951.4	2280.9
117.5°	375.5	445.0	928.0	1825.2	2164.2
120°	409.2	474.0	908.8	1729.2	2082.3
122.5°	433.3	502.7	884.7	1646.7	1971.6
125°	475.4	540.2	884.7	1547.1	1829.5
127.5°	510.3	576.3	885.9	1431.5	1710.4
130°	529.6	600.2	890.7	1354.1	1618.9
132.5°	553.7	624.3	890.7	1319.3	1537.1
135°	589.8	654.5	890.7	1274.1	1462.4
137.5°	619.9	689.3	890.7	1224.2	1385.4
140°	643.9	708.7	890.7	1195.0	1342.1
142.5°	668.0	728.0	895.5	1161.0	1298.7
145°	698.1	757.0	896.7	1110.0	1227.7
147.5°	734.2	786.0	903.9	1073.3	1163.9
150°	758.3	805.4	908.8	1048.9	1125.4
152.5°	782.4	824.7	908.8	1029.3	1091.7
155°	818.5	847.9	914.8	1006.1	1053.2
157.5°	847.4	875.6	922.0	991.4	1025.5
160°	866.6	890.2	926.8	981.6	1011.1
162.5°	881.1	904.6	931.6	976.6	996.6
165°	908.8	920.5	938.8	963.3	981.0
167.5°	924.4	935.0	944.9	957.1	967.7
170°	938.8	944.7	944.9	957.0	962.9
172.5°	943.7	954.2	949.7	952.2	958.1
175°	956.9	962.8	956.9	950.7	944.9
177.5°	956.9	961.6	956.9	956.8	952.1
180°	956.9	956.9	956.9	956.9	956.9

(END OF REPORT)