

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: P930138

Luminaire Tested: DFN2DS-HX3F0-030DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930138
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-HX3F0-030DS927-RLL
Description: 3 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

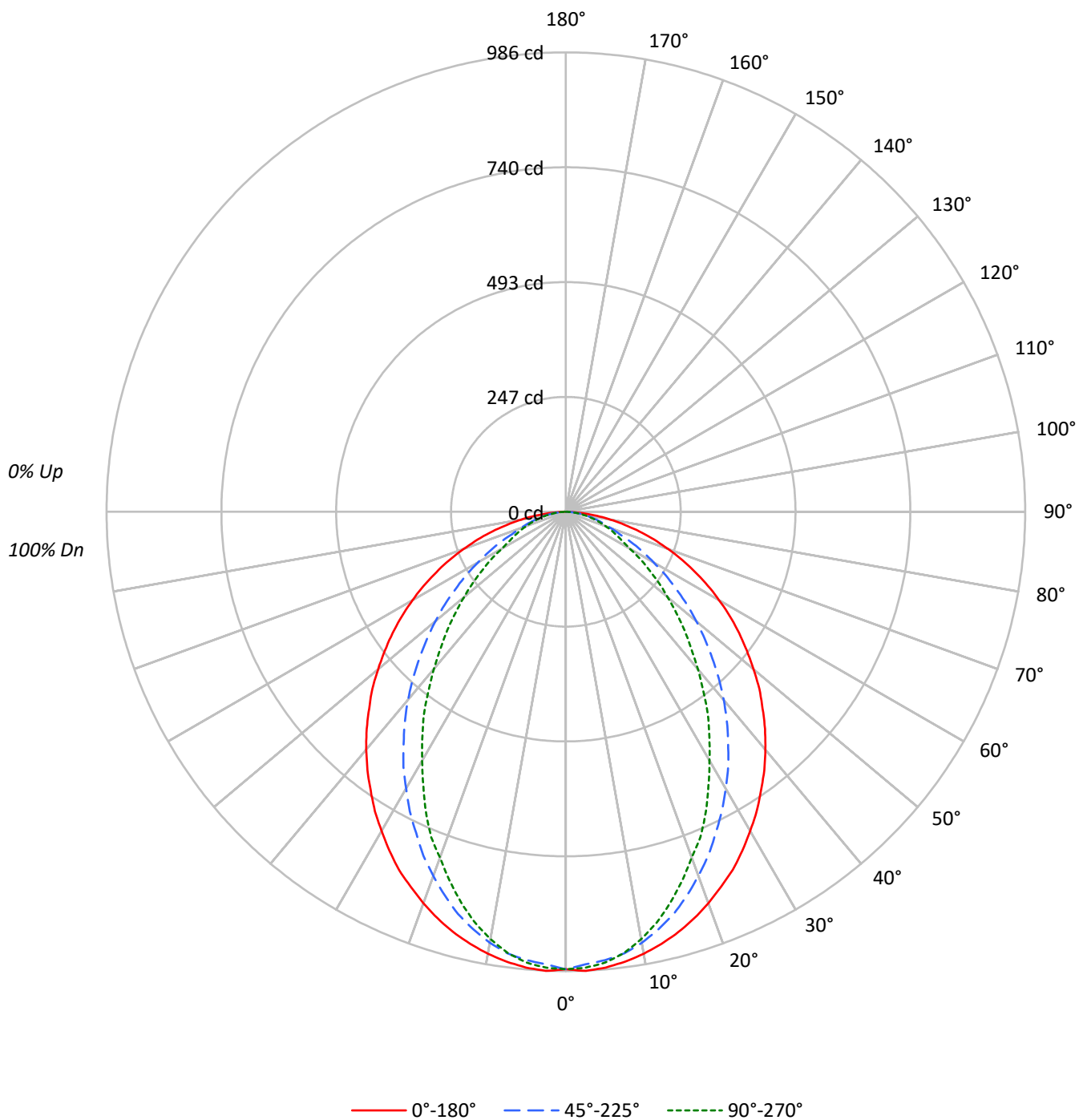
Lumens per Lamp: N/A
Luminaire Lumens: 2019.6 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 28.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.983
Total Harmonic Distortion (THDi): 0.073
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930138

CATALOG NUMBER: DFN2DS-HX3F0-030DS927-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930138

CATALOG NUMBER: DFN2DS-HX3F0-030DS927-RLL

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1138	1138	1138
5°	1142	1123	1129
10°	1133	1105	1096
15°	1120	1072	1041
20°	1102	1025	974
25°	1084	972	909
30°	1058	918	825
35°	1033	858	751
40°	1008	797	667
45°	978	728	590
50°	948	658	514
55°	917	583	442
60°	881	504	367
65°	840	424	334
70°	791	349	307
75°	732	318	286
80°	646	284	261
85°	508	225	225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 978 cd/sqm

TEST NUMBER: P930138

CATALOG NUMBER: DFN2DS-HX3F0-030DS927-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	4.6
10°-20°	252.7	12.5
20°-30°	354.7	17.6
30°-40°	386.7	19.1
40°-50°	355.4	17.6
50°-60°	279.1	13.8
60°-70°	181.6	9.0
70°-80°	93.5	4.6
80°-90°	23.9	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	699.4	34.6
0°-40°	1086.1	53.8
0°-60°	1720.5	85.2
0°-90°	2019.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	982	978	966	974	971	93
15°	934	924	894	877	868	263
25°	848	819	761	724	711	390
35°	730	685	607	551	531	457
45°	597	538	444	381	360	461
55°	454	385	289	236	219	406
65°	307	235	155	124	122	304
75°	164	101	71	65	64	173
85°	38	20	17	17	17	46
90°	0	0	0	0	0	

TEST NUMBER: P930138

CATALOG NUMBER: DFN2DS-HX3F0-030DS927-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.0	982.0	982.0	982.0	982.0
2.5°	986.4	982.0	972.2	981.1	979.4
5°	982.0	977.6	966.0	974.0	971.3
7.5°	974.0	968.7	956.3	959.7	955.3
10°	963.3	957.1	939.4	936.6	931.4
12.5°	950.0	942.0	918.0	912.7	902.9
15°	934.0	924.2	894.0	877.1	868.3
17.5°	915.3	901.1	863.8	844.3	830.0
20°	894.0	876.2	831.8	809.7	790.0
22.5°	871.0	850.4	798.9	768.7	755.4
25°	847.8	819.3	760.7	724.3	710.9
27.5°	820.3	790.0	725.2	683.4	662.9
30°	791.0	757.2	686.0	640.8	616.7
32.5°	762.5	721.6	648.8	595.4	573.2
35°	730.5	685.2	607.0	551.0	531.4
37.5°	699.4	650.5	567.9	506.5	484.4
40°	666.5	613.2	527.0	463.9	440.8
42.5°	632.7	575.9	486.1	420.3	398.1
45°	597.2	537.6	444.4	381.2	359.9
47.5°	563.4	500.4	404.4	341.2	321.7
50°	526.1	463.0	365.3	303.9	285.3
52.5°	489.6	423.0	328.0	269.3	252.4
55°	454.1	384.8	288.8	235.5	218.7
57.5°	417.7	346.6	254.2	204.4	190.2
60°	380.3	309.3	217.7	172.4	158.2
62.5°	344.0	272.8	186.6	144.0	136.9
65°	306.6	234.6	154.6	124.4	121.7
67.5°	271.1	199.0	124.4	109.3	106.6
70°	233.7	164.4	103.0	94.2	90.6
72.5°	198.2	132.3	86.2	79.1	77.3
75°	163.5	101.3	71.1	64.9	64.0
77.5°	128.9	71.9	56.0	52.4	50.6
80°	96.9	51.6	42.6	39.1	39.1
82.5°	67.5	34.7	29.3	27.6	27.6
85°	38.2	19.5	16.9	16.9	16.9
87.5°	14.3	7.0	7.0	6.3	6.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930138

CATALOG NUMBER: DFN2DS-HX3F0-030DS927-RLL

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	11.68	13.20	12.05	13.52	13.83	7.64	9.16	8.01	9.48	9.79
	3H	13.45	14.81	13.83	15.14	15.50	8.91	10.27	9.29	10.60	10.96
	4H	14.11	15.39	14.51	15.74	16.12	9.41	10.69	9.81	11.04	11.42
	6H	14.60	15.79	15.02	16.15	16.54	9.79	10.97	10.20	11.34	11.73
	8H	14.77	15.89	15.19	16.28	16.69	9.91	11.04	10.34	11.43	11.83
	12H	14.87	15.95	15.30	16.33	16.76	10.00	11.07	10.43	11.46	11.89
4H	2H	11.79	13.07	12.19	13.42	13.79	8.34	9.62	8.74	9.97	10.35
	3H	13.72	14.78	14.13	15.18	15.58	9.78	10.84	10.19	11.24	11.64
	4H	14.47	15.43	14.90	15.84	16.28	10.38	11.34	10.81	11.75	12.19
	6H	15.06	15.89	15.52	16.34	16.80	10.87	11.70	11.33	12.14	12.60
	8H	15.28	16.05	15.74	16.50	16.96	11.03	11.81	11.49	12.25	12.72
	12H	15.43	16.12	15.91	16.60	17.07	11.15	11.84	11.63	12.32	12.79
8H	4H	14.49	15.27	14.96	15.71	16.18	10.73	11.51	11.20	11.96	12.42
	6H	15.13	15.77	15.63	16.26	16.74	11.32	11.96	11.82	12.45	12.93
	8H	15.38	15.96	15.90	16.47	16.96	11.54	12.12	12.06	12.63	13.12
	12H	15.59	16.10	16.09	16.59	17.15	11.72	12.23	12.23	12.72	13.29
12H	4H	14.48	15.17	14.96	15.65	16.12	10.78	11.47	11.26	11.95	12.42
	6H	15.11	15.69	15.63	16.20	16.69	11.38	11.96	11.90	12.47	12.96
	8H	15.40	15.91	15.91	16.40	16.96	11.66	12.17	12.17	12.66	13.22