

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: P930141

Luminaire Tested: DFN2DS-HX3F0-030DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-HX3F0-030DS935-FLL
Description: 3 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

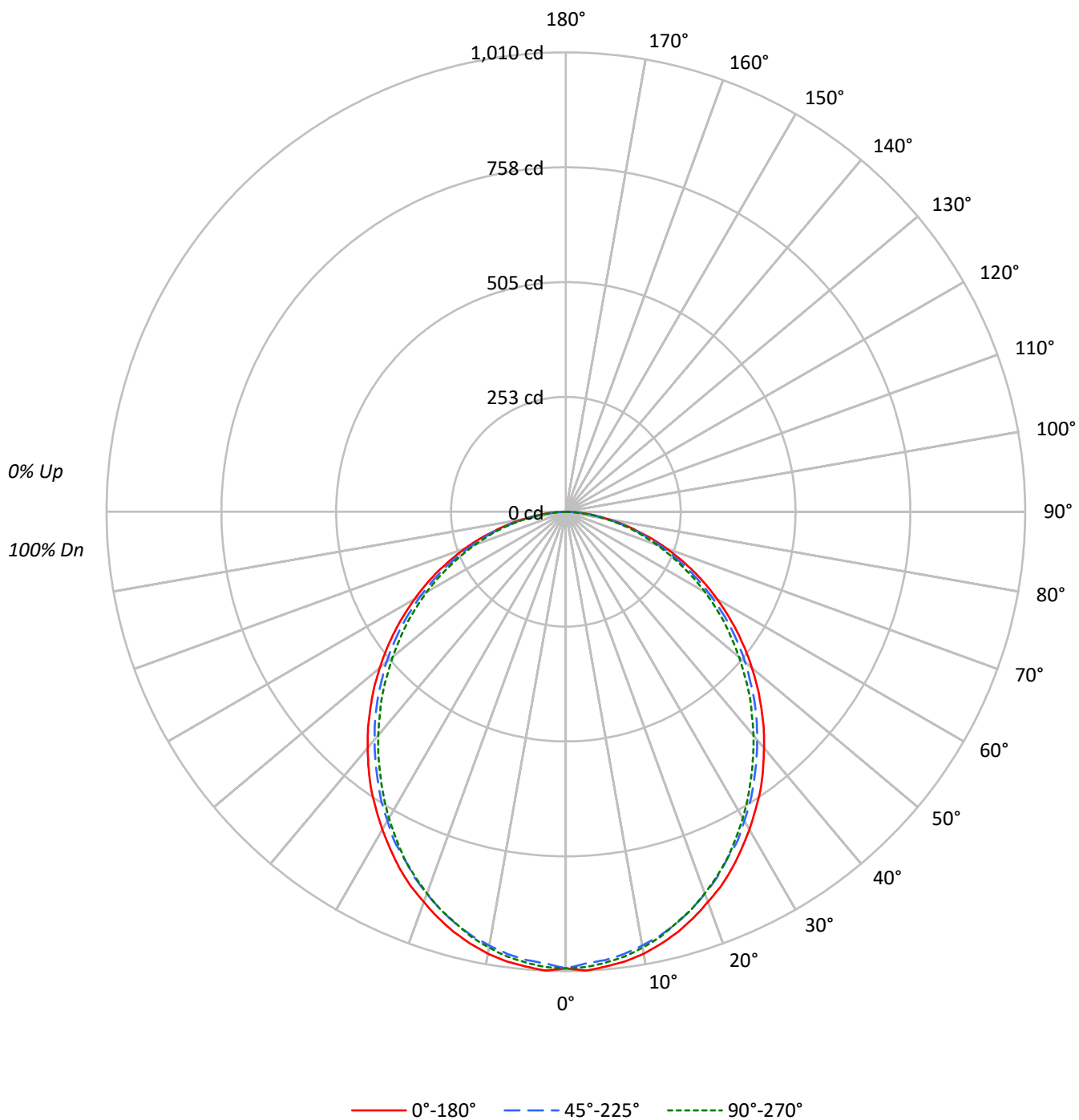
Lumens per Lamp: N/A
Luminaire Lumens: 2554.2 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

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: P930141

CATALOG NUMBER: DFN2DS-HX3F0-030DS935-FLL

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1163	1163	1163
5°	1167	1150	1157
10°	1160	1139	1145
15°	1146	1124	1123
20°	1126	1102	1101
25°	1105	1075	1075
30°	1079	1050	1041
35°	1055	1020	1005
40°	1025	990	971
45°	995	960	936
50°	962	929	896
55°	928	893	860
60°	890	850	819
65°	849	807	770
70°	798	755	719
75°	725	695	678
80°	644	624	592
85°	526	501	449

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 995 cd/sqm

TEST NUMBER: P930141

CATALOG NUMBER: DFN2DS-HX3F0-030DS935-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	3.7
10°-20°	265.8	10.4
20°-30°	390.7	15.3
30°-40°	453.8	17.8
40°-50°	453.2	17.7
50°-60°	395.2	15.5
60°-70°	292.1	11.4
70°-80°	165.3	6.5
80°-90°	43.6	1.7
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°	751.0	29.4
0°-40°	1204.8	47.2
0°-60°	2053.2	80.4
0°-90°	2554.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2554.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	1004	1000	989	997	995	95
15°	956	950	937	941	936	269
25°	865	857	841	843	841	398
35°	746	737	721	715	710	466
45°	607	600	586	575	572	469
55°	460	454	442	431	426	411
65°	310	304	294	286	281	306
75°	162	160	155	150	152	173
85°	40	39	38	35	34	46
90°	0	0	0	0	0	

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CATALOG NUMBER: DFN2DS-HX3F0-030DS935-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1003.9	1003.9	1003.9	1003.9	1003.9
2.5°	1009.7	1004.9	994.2	1003.9	1002.1
5°	1003.9	1000.1	989.4	997.2	995.3
7.5°	997.2	991.4	980.7	988.6	986.6
10°	986.6	979.8	968.3	975.9	973.1
12.5°	972.1	966.3	954.8	959.5	957.6
15°	955.6	950.0	937.3	941.2	936.4
17.5°	935.3	929.7	917.0	921.8	917.0
20°	913.1	907.4	893.9	896.7	892.9
22.5°	891.0	882.4	869.7	869.7	867.7
25°	864.9	857.2	840.8	842.7	840.8
27.5°	835.9	829.1	816.7	813.8	809.0
30°	807.0	799.3	784.8	781.9	778.0
32.5°	776.2	770.4	754.9	749.1	745.2
35°	746.2	736.6	721.1	715.3	710.4
37.5°	712.4	703.7	688.3	681.5	676.6
40°	677.7	669.9	654.5	645.9	642.0
42.5°	643.9	636.1	620.7	611.0	605.3
45°	607.2	600.5	585.9	575.3	571.5
47.5°	571.5	564.8	549.3	538.6	532.9
50°	533.8	529.0	515.5	502.0	497.2
52.5°	497.2	490.4	477.9	467.2	460.4
55°	459.6	453.7	442.1	430.6	425.8
57.5°	421.8	417.0	404.5	392.8	389.0
60°	384.2	380.4	366.9	356.2	353.4
62.5°	347.5	340.7	331.1	321.5	317.6
65°	309.9	304.1	294.5	285.8	281.0
67.5°	271.3	266.4	257.7	251.0	247.2
70°	235.6	231.7	223.0	216.2	212.4
72.5°	198.9	195.0	190.1	183.4	180.6
75°	162.1	160.3	155.4	149.6	151.6
77.5°	129.3	125.5	123.5	120.7	117.8
80°	96.6	95.5	93.6	90.7	88.8
82.5°	65.6	65.6	64.8	60.8	60.8
85°	39.6	38.6	37.7	34.7	33.8
87.5°	17.4	15.5	13.5	10.7	9.6
90°	0.0	0.0	0.0	0.0	0.0

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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	11.81	13.42	12.17	13.73	14.05	11.36	12.97	11.73	13.29	13.60
	3H	13.56	15.01	13.93	15.34	15.70	13.07	14.52	13.44	14.85	15.21
	4H	14.20	15.57	14.60	15.92	16.30	13.71	15.08	14.11	15.42	15.80
	6H	14.67	15.94	15.08	16.31	16.70	14.17	15.44	14.58	15.80	16.19
	8H	14.81	16.03	15.24	16.41	16.81	14.31	15.52	14.74	15.91	16.31
	12H	14.91	16.07	15.33	16.45	16.88	14.39	15.55	14.82	15.93	16.36
4H	2H	12.37	13.74	12.77	14.08	14.46	12.01	13.38	12.41	13.73	14.11
	3H	14.34	15.49	14.75	15.89	16.29	13.94	15.08	14.34	15.48	15.88
	4H	15.12	16.15	15.55	16.57	17.00	14.69	15.73	15.13	16.14	16.58
	6H	15.72	16.62	16.17	17.06	17.52	15.28	16.19	15.74	16.63	17.08
	8H	15.90	16.75	16.37	17.19	17.66	15.47	16.31	15.93	16.76	17.22
	12H	16.04	16.80	16.52	17.27	17.74	15.58	16.34	16.06	16.82	17.29
8H	4H	15.39	16.24	15.85	16.68	17.15	15.02	15.86	15.48	16.31	16.77
	6H	16.11	16.81	16.60	17.30	17.77	15.72	16.43	16.22	16.92	17.39
	8H	16.37	17.00	16.88	17.50	17.99	15.97	16.60	16.48	17.11	17.60
	12H	16.57	17.12	17.07	17.61	18.17	16.15	16.71	16.66	17.20	17.76
12H	4H	15.42	16.18	15.90	16.65	17.12	15.05	15.81	15.53	16.29	16.76
	6H	16.15	16.78	16.66	17.29	17.78	15.78	16.42	16.29	16.92	17.41
	8H	16.47	17.02	16.97	17.51	18.07	16.09	16.65	16.59	17.14	17.70