

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: P930069

Luminaire Tested: DFN2DS-HX2F0-030DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930069
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-HX2F0-030DS935-FLL
Description: 2 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

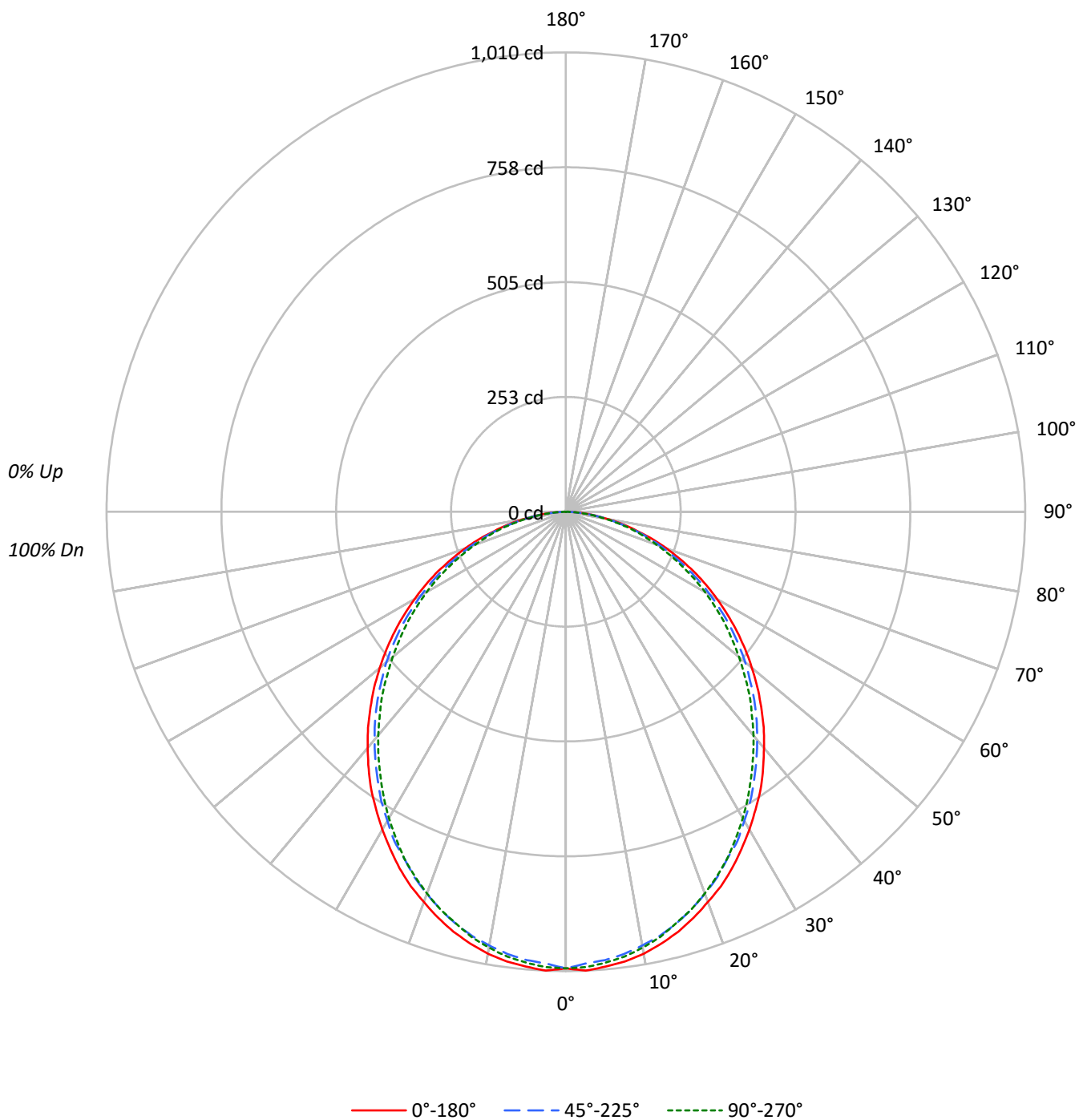
Lumens per Lamp: N/A
Luminaire Lumens: 2554.2 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
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
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°	2365	2365	2365
5°	2374	2340	2354
10°	2360	2317	2328
15°	2331	2286	2284
20°	2289	2241	2239
25°	2248	2186	2186
30°	2196	2135	2117
35°	2146	2074	2043
40°	2084	2013	1975
45°	2023	1952	1904
50°	1957	1890	1822
55°	1888	1816	1749
60°	1810	1729	1665
65°	1728	1642	1567
70°	1623	1536	1463
75°	1476	1415	1380
80°	1311	1270	1205
85°	1071	1019	914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2023 cd/sqm

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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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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	14.27	15.88	14.64	16.20	16.51	13.83	15.44	14.19	15.75	16.07
	3H	16.02	17.48	16.40	17.80	18.17	15.53	16.99	15.91	17.31	17.67
	4H	16.67	18.04	17.07	18.39	18.76	16.17	17.54	16.57	17.89	18.27
	6H	17.14	18.41	17.55	18.77	19.16	16.64	17.91	17.05	18.27	18.66
	8H	17.28	18.49	17.71	18.88	19.28	16.78	17.99	17.20	18.38	18.78
	12H	17.37	18.53	17.80	18.91	19.34	16.86	18.02	17.29	18.40	18.83
4H	2H	14.83	16.20	15.23	16.55	16.93	14.48	15.85	14.88	16.20	16.57
	3H	16.81	17.96	17.22	18.35	18.75	16.40	17.55	16.81	17.95	18.35
	4H	17.59	18.62	18.02	19.04	19.47	17.16	18.20	17.59	18.61	19.05
	6H	18.18	19.09	18.64	19.53	19.98	17.75	18.65	18.20	19.10	19.55
	8H	18.37	19.22	18.83	19.66	20.13	17.93	18.78	18.39	19.22	19.69
	12H	18.50	19.26	18.98	19.74	20.21	18.05	18.81	18.53	19.29	19.76
8H	4H	17.86	18.71	18.32	19.15	19.61	17.48	18.33	17.95	18.77	19.24
	6H	18.57	19.28	19.07	19.76	20.24	18.19	18.89	18.69	19.38	19.86
	8H	18.83	19.46	19.34	19.97	20.46	18.44	19.07	18.95	19.58	20.06
	12H	19.03	19.59	19.54	20.08	20.64	18.62	19.18	19.13	19.67	20.23
12H	4H	17.89	18.64	18.37	19.12	19.59	17.52	18.28	18.00	18.76	19.23
	6H	18.62	19.25	19.13	19.76	20.24	18.25	18.88	18.76	19.39	19.87
	8H	18.93	19.49	19.44	19.98	20.54	18.55	19.11	19.06	19.60	20.16