

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: P930052

Luminaire Tested: DFN2DS-HX2F0-020DS935-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930052
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-HX2F0-020DS935-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

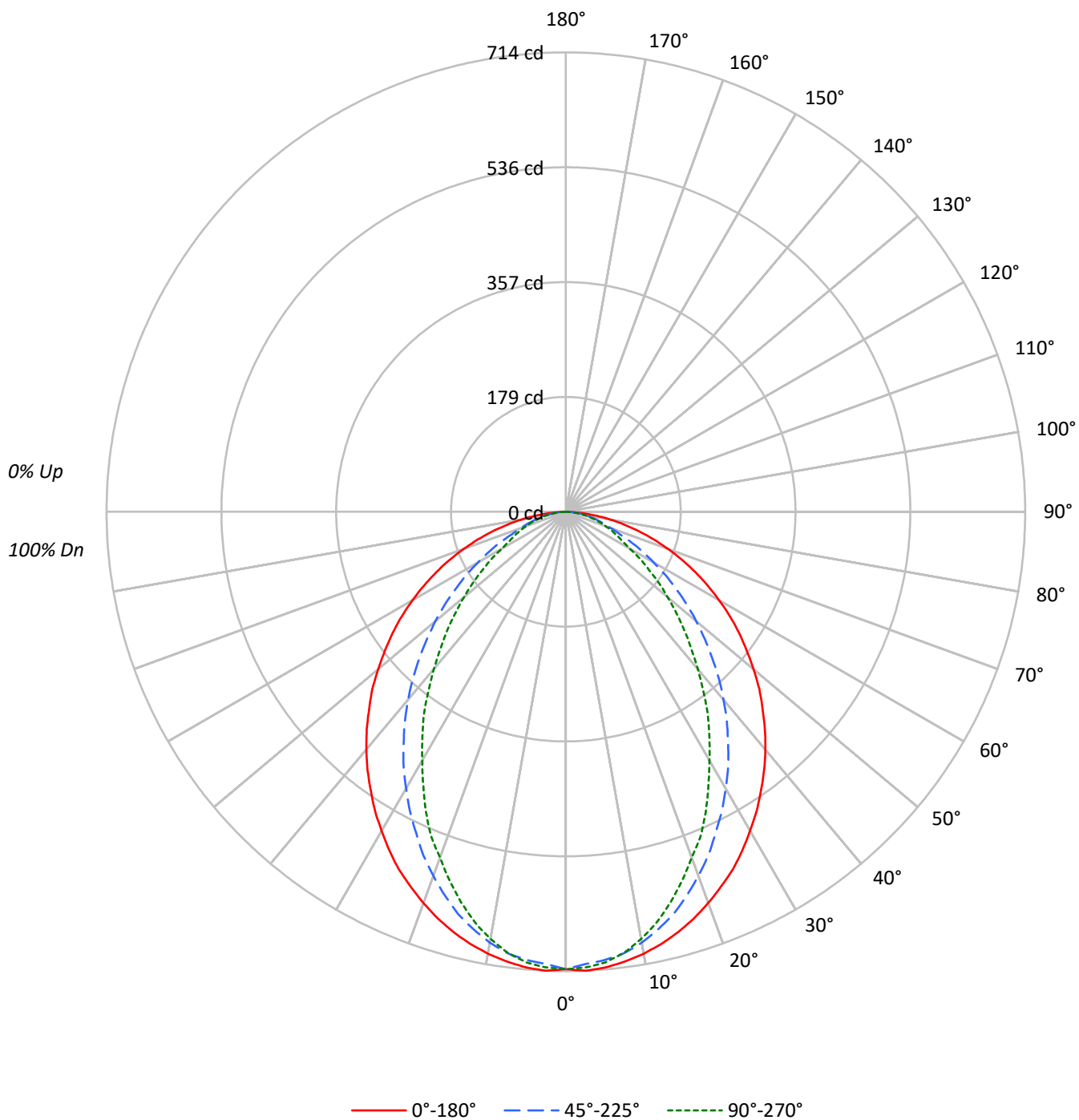
Lumens per Lamp: N/A
Luminaire Lumens: 1462.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 17.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
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	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°	1675	1675	1675
5°	1681	1654	1663
10°	1669	1627	1613
15°	1649	1579	1533
20°	1623	1510	1434
25°	1596	1432	1338
30°	1558	1351	1214
35°	1521	1264	1107
40°	1484	1173	981
45°	1440	1072	868
50°	1396	969	757
55°	1350	859	650
60°	1298	743	540
65°	1238	624	492
70°	1166	514	452
75°	1077	468	422
80°	951	419	384
85°	746	330	330

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1440 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	4.6
10°-20°	182.9	12.5
20°-30°	256.8	17.6
30°-40°	279.9	19.1
40°-50°	257.3	17.6
50°-60°	202.1	13.8
60°-70°	131.5	9.0
70°-80°	67.7	4.6
80°-90°	17.3	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°	506.3	34.6
0°-40°	786.2	53.8
0°-60°	1245.5	85.2
0°-90°	1462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1462.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	711	708	699	705	703	67
15°	676	669	647	635	629	191
25°	614	593	551	524	515	282
35°	529	496	440	399	385	331
45°	432	389	322	276	260	334
55°	329	279	209	170	158	294
65°	222	170	112	90	88	220
75°	118	73	51	47	46	125
85°	28	14	12	12	12	33
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	710.9	710.9	710.9	710.9	710.9
2.5°	714.1	710.9	703.7	710.3	709.0
5°	710.9	707.7	699.3	705.1	703.1
7.5°	705.1	701.2	692.2	694.8	691.5
10°	697.4	692.8	680.0	678.0	674.2
12.5°	687.7	681.9	664.5	660.7	653.6
15°	676.1	669.0	647.2	634.9	628.6
17.5°	662.6	652.3	625.3	611.1	600.9
20°	647.2	634.2	602.2	586.1	571.9
22.5°	630.5	615.7	578.4	556.5	546.9
25°	613.8	593.1	550.7	524.3	514.6
27.5°	593.8	571.9	524.9	494.7	479.9
30°	572.6	548.1	496.6	463.9	446.4
32.5°	551.9	522.4	469.6	431.0	415.0
35°	528.8	496.0	439.5	398.9	384.7
37.5°	506.3	470.8	411.1	366.7	350.6
40°	482.5	443.9	381.5	335.8	319.1
42.5°	458.0	416.9	351.9	304.3	288.3
45°	432.3	389.2	321.7	276.0	260.5
47.5°	407.9	362.2	292.7	247.0	232.9
50°	380.9	335.2	264.4	220.0	206.6
52.5°	354.4	306.2	237.4	195.0	182.8
55°	328.7	278.6	209.1	170.5	158.2
57.5°	302.4	250.9	184.0	148.0	137.7
60°	275.4	223.9	157.6	124.9	114.6
62.5°	249.0	197.5	135.1	104.2	99.1
65°	222.0	169.8	112.0	90.1	88.2
67.5°	196.3	144.0	90.1	79.1	77.2
70°	169.2	119.0	74.6	68.2	65.6
72.5°	143.4	95.8	62.4	57.3	56.0
75°	118.3	73.3	51.4	47.0	46.4
77.5°	93.3	52.1	40.5	37.9	36.6
80°	70.1	37.3	30.9	28.3	28.3
82.5°	48.8	25.1	21.2	20.0	20.0
85°	27.6	14.1	12.2	12.2	12.2
87.5°	10.3	5.2	5.2	4.5	4.5
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	13.03	14.55	13.39	14.86	15.18	8.99	10.51	9.35	10.82	11.14
	3H	14.79	16.16	15.17	16.48	16.85	10.25	11.62	10.63	11.95	12.31
	4H	15.46	16.74	15.86	17.09	17.47	10.76	12.04	11.16	12.39	12.76
	6H	15.95	17.13	16.36	17.50	17.89	11.14	12.32	11.55	12.68	13.08
	8H	16.11	17.24	16.54	17.63	18.03	11.26	12.39	11.69	12.78	13.18
	12H	16.21	17.29	16.64	17.67	18.10	11.34	12.42	11.77	12.80	13.23
4H	2H	13.13	14.41	13.53	14.76	15.14	9.68	10.97	10.08	11.31	11.69
	3H	15.06	16.13	15.47	16.53	16.93	11.13	12.19	11.54	12.59	12.99
	4H	15.81	16.77	16.25	17.18	17.62	11.73	12.68	12.16	13.10	13.54
	6H	16.40	17.24	16.86	17.68	18.14	12.21	13.05	12.67	13.49	13.95
	8H	16.62	17.40	17.08	17.84	18.31	12.38	13.15	12.84	13.60	14.07
	12H	16.77	17.47	17.25	17.94	18.42	12.49	13.19	12.98	13.67	14.14
8H	4H	15.84	16.61	16.30	17.06	17.53	12.08	12.86	12.54	13.30	13.77
	6H	16.47	17.12	16.97	17.61	18.09	12.67	13.31	13.16	13.80	14.28
	8H	16.72	17.30	17.24	17.81	18.30	12.89	13.46	13.40	13.97	14.46
	12H	16.93	17.44	17.44	17.93	18.49	13.07	13.58	13.58	14.07	14.63
12H	4H	15.82	16.52	16.30	16.99	17.47	12.12	12.82	12.61	13.30	13.77
	6H	16.46	17.03	16.97	17.54	18.03	12.73	13.31	13.24	13.82	14.30
	8H	16.74	17.25	17.25	17.74	18.31	13.00	13.51	13.51	14.01	14.57