

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242170

Luminaire Tested: **S121DR-S1025D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S1025D930-X4F0-XX-UDD-D-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3301.9 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.34 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.09' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

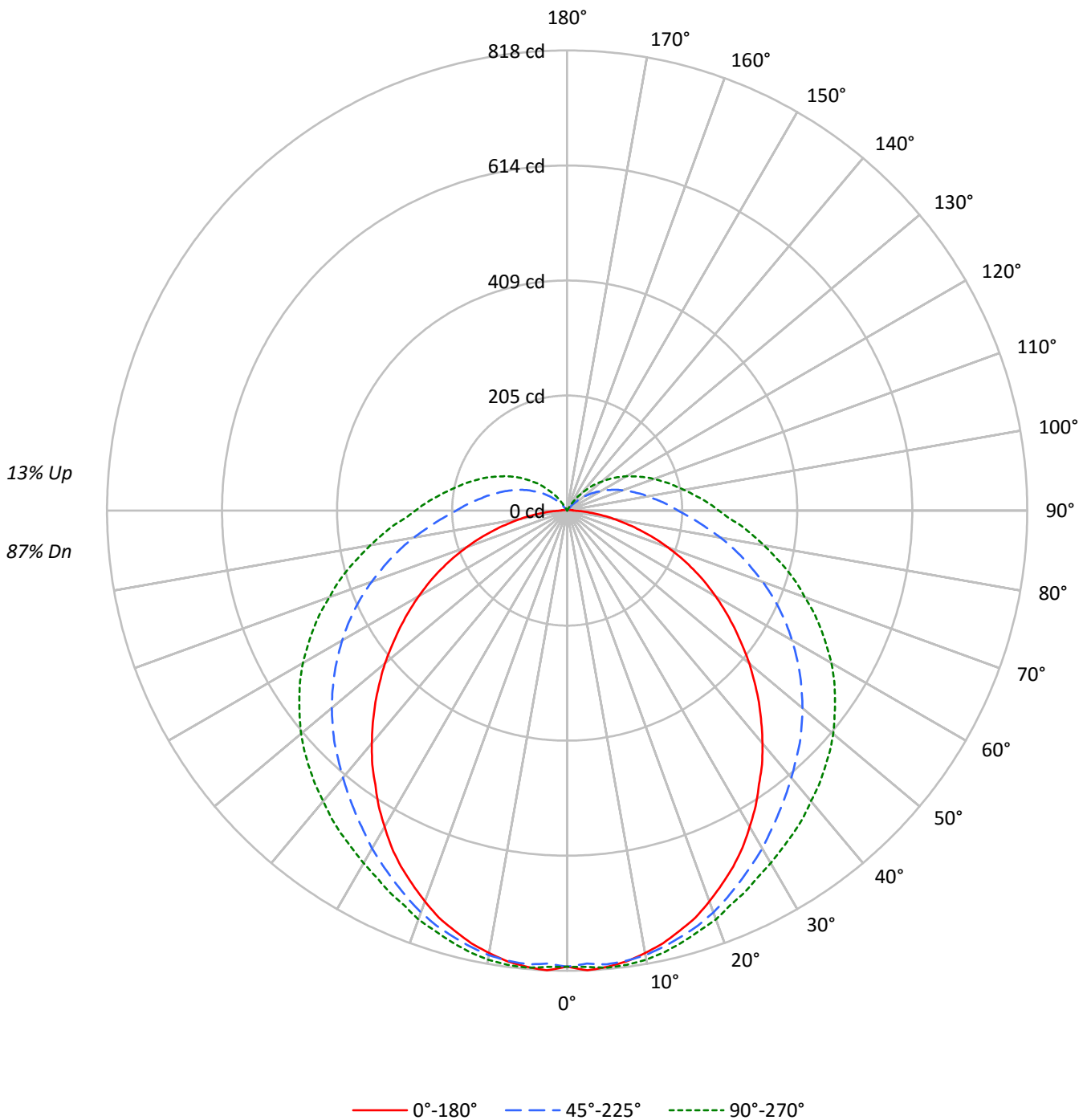
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87				
1	103	97	92	87	99	94	89	84	87	83	79	81	77	75	75	72	70	67				
2	93	83	75	69	89	80	73	67	74	68	63	69	64	60	64	60	57	54				
3	84	72	63	56	80	70	61	55	65	58	52	60	54	49	56	51	47	44				
4	76	63	54	47	73	61	53	46	57	50	44	53	47	42	49	44	40	37				
5	70	56	47	40	67	54	46	39	51	43	37	47	41	36	44	39	34	32				
6	65	51	41	34	62	49	40	34	46	38	32	43	36	31	40	34	30	27				
7	60	46	37	30	57	44	36	30	41	34	28	39	32	27	36	31	26	24				
8	55	42	33	27	53	40	32	26	38	31	25	36	29	24	33	28	23	21				
9	52	38	30	24	50	37	29	23	35	28	23	33	26	22	31	25	21	19				
10	48	35	27	22	47	34	26	21	32	25	20	30	24	20	29	23	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24024	24024	24024
5°	24177	22796	22508
10°	23940	21678	21089
15°	23585	20517	19668
20°	23136	19415	18423
25°	22606	18290	17288
30°	21929	17301	16365
35°	21185	16359	15624
40°	20520	15568	14939
45°	19776	14908	14369
50°	19007	14247	13822
55°	18168	13595	13230
60°	17397	12934	12659
65°	16601	12279	12009
70°	15517	11571	11313
75°	14211	10855	10702
80°	12684	10152	10036
85°	10888	9486	9459



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	2.3
10°-20°	222.0	6.7
20°-30°	335.7	10.2
30°-40°	410.5	12.4
40°-50°	445.6	13.5
50°-60°	439.6	13.3
60°-70°	394.6	12.0
70°-80°	317.6	9.6
80°-90°	229.4	6.9
90°-100°	164.0	5.0
100°-110°	117.4	3.6
110°-120°	78.3	2.4
120°-130°	45.0	1.4
130°-140°	20.3	0.6
140°-150°	4.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	635.1	19.2
0°-40°	1045.6	31.7
0°-60°	1930.9	58.5
0°-90°	2872.5	87.0
90°-120°	359.6	10.9
90°-150°	429.4	13.0
90°-180°	429.0	13.0
0°-180°	3301.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	811	811	811	811	811	
5°	814	813	810	817	816	77
15°	773	784	784	795	794	218
25°	698	716	727	744	748	321
35°	594	627	656	689	701	373
45°	482	526	585	632	648	372
55°	362	425	505	563	581	324
65°	248	326	417	478	498	245
75°	134	225	323	384	404	142
85°	40	135	233	292	310	42
90°	11	102	197	252	270	8
95°	8	81	170	225	239	6
105°	5	48	124	173	187	6
115°	4	24	87	129	143	4
125°	2	4	53	89	102	2
135°	1	1	20	51	60	1
145°	0	0	0	14	20	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	810.8	810.8	810.8	810.8	810.8
2.5°	818.0	814.4	806.0	814.4	812.0
5°	814.4	813.2	809.6	816.8	815.6
7.5°	808.4	810.8	807.2	816.8	814.4
10°	798.7	804.8	802.3	812.0	810.8
12.5°	787.8	795.1	793.9	804.8	803.5
15°	773.3	784.2	784.2	795.1	793.9
17.5°	758.8	769.7	773.3	785.4	783.0
20°	739.5	754.0	760.0	770.9	773.3
22.5°	719.0	737.1	744.3	757.6	758.8
25°	698.4	716.5	727.4	744.3	748.0
27.5°	675.5	696.0	710.5	729.8	734.7
30°	648.9	674.3	693.6	715.3	723.8
32.5°	623.5	651.3	674.3	703.3	711.7
35°	594.5	627.1	656.1	688.8	700.8
37.5°	569.1	603.0	638.0	675.5	688.8
40°	540.1	576.4	619.9	661.0	674.3
42.5°	511.1	552.2	601.8	647.7	662.2
45°	482.1	525.6	584.8	632.0	647.7
47.5°	451.9	501.5	565.5	616.3	633.2
50°	422.9	476.1	546.2	599.3	617.5
52.5°	391.5	450.7	525.6	581.2	599.3
55°	362.5	425.3	505.1	563.1	581.2
57.5°	333.5	400.0	483.3	542.5	563.1
60°	304.5	374.6	461.6	522.0	542.5
62.5°	276.7	350.4	439.8	501.5	519.6
65°	247.7	326.3	416.9	478.5	497.8
67.5°	218.7	300.9	393.9	455.5	474.9
70°	189.7	274.3	369.8	432.6	449.5
72.5°	161.9	250.1	345.6	409.6	427.8
75°	134.1	224.8	322.6	384.3	403.6
77.5°	107.5	200.6	299.7	361.3	378.2
80°	83.4	176.4	276.7	338.3	355.3
82.5°	60.4	155.9	253.8	314.2	332.3
85°	39.9	135.3	233.2	292.4	310.5
87.5°	24.2	117.2	213.9	271.9	286.4
90°	10.9	101.5	197.0	252.5	269.5
92.5°	9.7	90.6	183.7	239.3	255.0
95°	8.5	81.0	170.4	224.8	239.3
97.5°	7.3	71.3	157.1	210.3	224.8
100°	6.0	62.8	146.2	197.0	211.5
102.5°	6.0	55.6	135.3	183.7	198.2
105°	4.8	48.3	124.5	172.8	187.3
107.5°	4.8	42.3	114.8	161.9	175.2
110°	4.8	36.3	105.1	151.0	164.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.6	30.2	96.7	140.2	153.5
115°	3.6	24.2	87.0	129.3	142.6
117.5°	3.6	18.1	78.5	119.6	131.7
120°	2.4	13.3	68.9	110.0	122.0
122.5°	2.4	8.5	61.6	99.1	111.2
125°	2.4	3.6	53.2	89.4	101.5
127.5°	2.4	1.2	44.7	79.8	90.6
130°	1.2	1.2	37.5	70.1	79.8
132.5°	1.2	1.2	29.0	60.4	71.3
135°	1.2	1.2	20.5	50.8	60.4
137.5°	1.2	0.0	13.3	41.1	49.5
140°	1.2	0.0	7.3	32.6	39.9
142.5°	1.2	0.0	1.2	23.0	31.4
145°	0.0	0.0	0.0	14.5	20.5
147.5°	0.0	0.0	0.0	6.0	12.1
150°	0.0	0.0	0.0	0.0	3.6
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)