

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: P242107

Luminaire Tested: **S121DR-S305D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242107
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S305D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1070.9 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

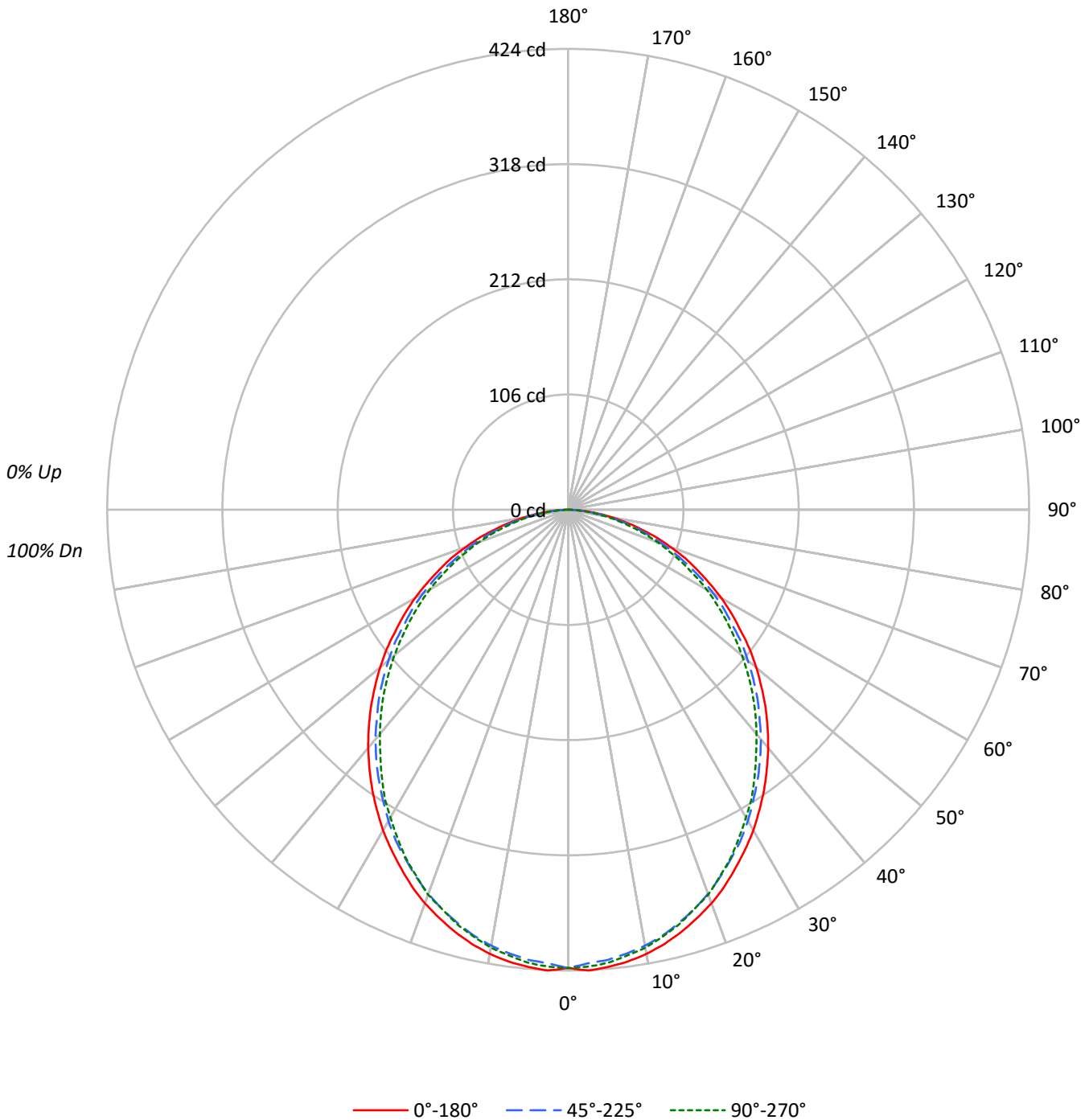
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12495	12495	12495
5°	12563	12367	12447
10°	12486	12254	12312
15°	12337	12074	12110
20°	12152	11859	11884
25°	11900	11583	11557
30°	11657	11311	11188
35°	11365	10985	10815
40°	11070	10664	10420
45°	10752	10312	10048
50°	10408	9943	9620
55°	9996	9495	9154
60°	9642	9138	8723
65°	9170	8574	8133
70°	8637	7996	7554
75°	7933	7270	6777
80°	7047	6382	5921
85°	5813	4759	4250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.7	3.7
10°-20°	111.8	10.4
20°-30°	164.4	15.4
30°-40°	190.9	17.8
40°-50°	190.5	17.8
50°-60°	165.8	15.5
60°-70°	122.1	11.4
70°-80°	68.0	6.4
80°-90°	17.5	1.6
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°	316.0	29.5
0°-40°	506.9	47.3
0°-60°	863.2	80.6
0°-90°	1070.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1070.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	422	420	416	419	418	40
15°	402	399	394	396	395	113
25°	364	360	354	355	354	168
35°	314	310	304	301	299	196
45°	257	252	246	241	240	198
55°	194	191	184	180	177	174
65°	131	128	122	118	116	130
75°	69	67	64	61	59	74
85°	17	16	14	13	12	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	421.7	421.7	421.7	421.7	421.7
2.5°	424.4	422.0	417.8	421.3	420.9
5°	422.4	420.5	415.8	419.3	418.5
7.5°	419.3	417.0	411.9	415.0	413.9
10°	415.0	412.7	407.3	409.6	409.2
12.5°	409.2	406.5	401.4	403.4	402.2
15°	402.2	399.1	393.6	396.4	394.8
17.5°	394.0	390.5	385.4	387.0	385.4
20°	385.4	381.6	376.1	377.7	376.9
22.5°	375.3	371.8	365.6	366.4	364.8
25°	364.0	360.1	354.3	355.1	353.5
27.5°	352.4	348.9	343.4	342.2	340.3
30°	340.7	336.4	330.6	329.0	327.0
32.5°	327.4	323.5	316.9	315.4	314.2
35°	314.2	310.3	303.7	300.6	299.0
37.5°	300.2	296.3	289.7	286.2	283.8
40°	286.2	281.9	275.7	272.1	269.4
42.5°	271.4	267.5	260.5	257.0	255.0
45°	256.6	252.3	246.1	241.4	239.8
47.5°	241.0	237.1	230.9	225.8	224.3
50°	225.8	221.5	215.7	210.6	208.7
52.5°	210.2	206.4	200.9	195.8	192.7
55°	193.5	191.2	183.8	180.3	177.2
57.5°	178.3	175.6	169.8	163.9	162.0
60°	162.7	159.6	154.2	149.1	147.2
62.5°	146.4	144.1	138.6	133.9	131.2
65°	130.8	128.1	122.3	118.4	116.0
67.5°	116.4	112.9	107.1	103.2	101.2
70°	99.7	96.9	92.3	89.2	87.2
72.5°	85.3	82.2	77.9	74.8	72.8
75°	69.3	67.4	63.5	60.7	59.2
77.5°	55.3	52.6	49.8	47.9	46.7
80°	41.3	39.3	37.4	35.4	34.7
82.5°	28.8	27.3	25.3	24.1	23.0
85°	17.1	16.4	14.0	13.2	12.5
87.5°	8.2	7.0	4.7	4.3	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)