

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: P242948

Luminaire Tested: **S121DR-H305D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242948
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H305D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1145.9 lumens
Efficiency: N/A
Efficacy: 102.3 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

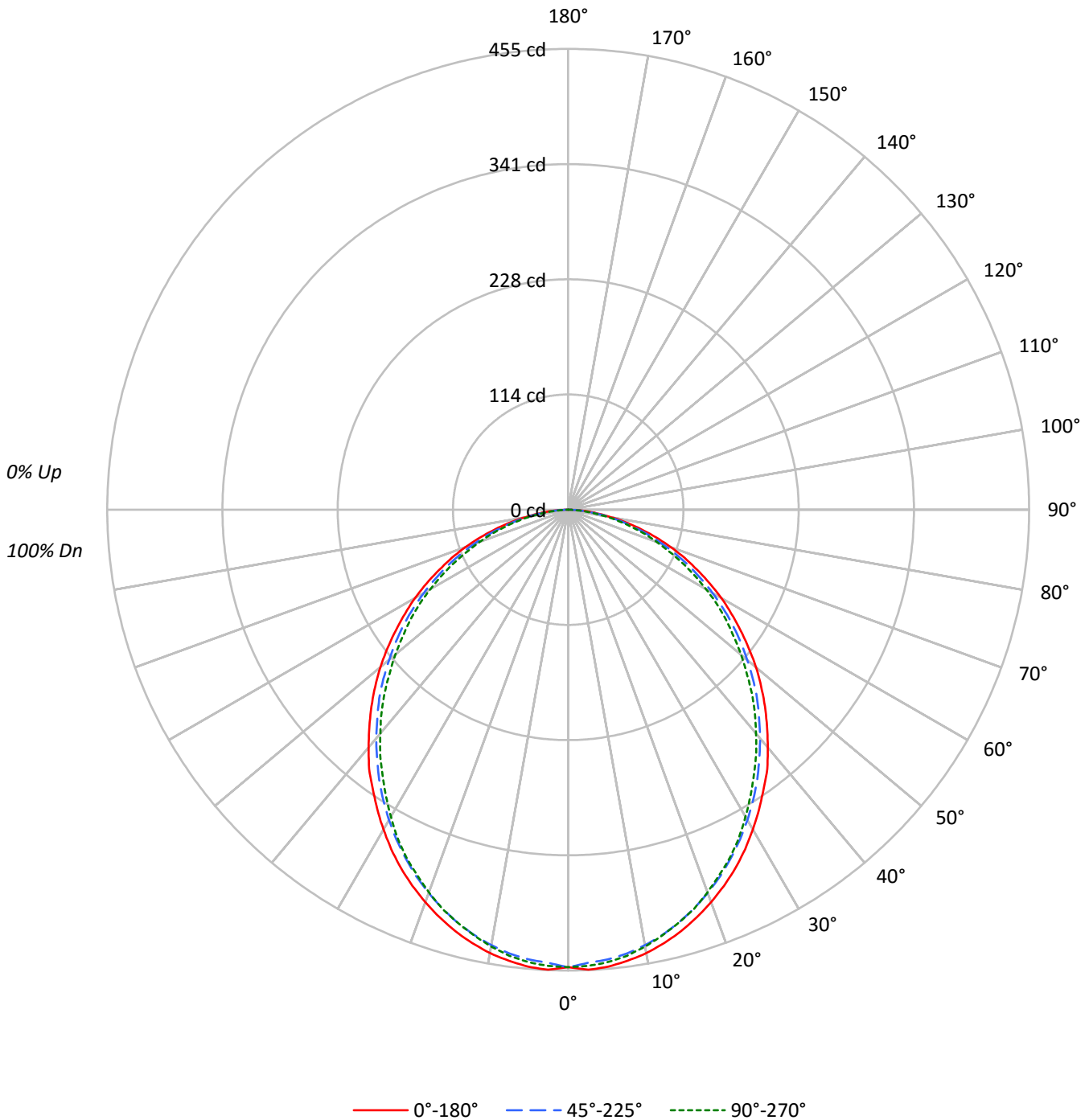
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	97	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	73	66	88	79	72	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	52
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°	13384	13384	13384
5°	13474	13259	13337
10°	13377	13136	13175
15°	13215	12945	12945
20°	13003	12698	12672
25°	12770	12413	12371
30°	12474	12101	11975
35°	12161	11766	11553
40°	11851	11399	11155
45°	11506	11050	10735
50°	11155	10634	10265
55°	10724	10228	9841
60°	10347	9748	9327
65°	9829	9219	8715
70°	9322	8559	8013
75°	8529	7762	7281
80°	7422	6859	6365
85°	6391	5269	4420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	3.7
10°-20°	119.8	10.5
20°-30°	176.1	15.4
30°-40°	204.3	17.8
40°-50°	203.8	17.8
50°-60°	177.4	15.5
60°-70°	130.6	11.4
70°-80°	72.7	6.3
80°-90°	18.7	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°	338.4	29.5
0°-40°	542.7	47.4
0°-60°	923.9	80.6
0°-90°	1145.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1145.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	453	450	446	449	448	43
15°	431	428	422	424	422	121
25°	391	386	380	380	378	180
35°	336	332	325	322	319	211
45°	275	270	264	258	256	212
55°	208	204	198	193	190	186
65°	140	137	132	126	124	139
75°	74	71	68	65	64	79
85°	19	18	16	13	13	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	451.7	451.7	451.7	451.7	451.7
2.5°	454.6	452.1	447.9	451.7	450.9
5°	453.0	450.4	445.8	449.2	448.4
7.5°	449.2	447.1	442.1	445.0	444.2
10°	444.6	442.1	436.6	439.1	437.9
12.5°	438.3	436.2	429.9	432.0	430.4
15°	430.8	428.3	422.0	423.7	422.0
17.5°	422.0	419.5	412.8	414.0	413.2
20°	412.4	409.0	402.7	403.6	401.9
22.5°	401.9	398.1	391.8	391.8	390.2
25°	390.6	386.0	379.7	379.7	378.4
27.5°	378.0	373.8	367.1	366.3	365.0
30°	364.6	360.4	353.7	352.1	350.0
32.5°	350.8	346.2	339.9	337.0	334.9
35°	336.2	332.0	325.3	321.5	319.4
37.5°	322.8	316.9	309.8	306.4	304.8
40°	306.4	301.4	294.7	290.1	288.4
42.5°	290.5	285.9	278.8	274.2	272.9
45°	274.6	270.0	263.7	258.3	256.2
47.5°	258.3	253.7	247.4	242.0	239.0
50°	242.0	237.4	230.7	225.2	222.7
52.5°	224.8	221.5	214.3	209.3	206.0
55°	207.6	203.9	198.0	192.6	190.5
57.5°	190.9	187.5	181.3	175.4	174.2
60°	174.6	171.2	164.5	159.5	157.4
62.5°	157.4	154.1	147.8	142.8	140.7
65°	140.2	137.3	131.5	126.0	124.3
67.5°	124.3	120.6	115.1	110.1	108.0
70°	107.6	103.4	98.8	94.6	92.5
72.5°	90.8	87.5	83.7	79.5	78.7
75°	74.5	71.2	67.8	64.9	63.6
77.5°	59.0	56.5	54.0	51.1	50.2
80°	43.5	41.9	40.2	38.1	37.3
82.5°	30.6	29.3	26.8	25.1	24.3
85°	18.8	17.6	15.5	13.4	13.0
87.5°	8.8	7.1	5.4	4.6	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)