

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: P199514

Luminaire Tested: **S124-DIW-ULO-LO-30-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199514
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28061)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIW-ULO-LO-30-0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LLO-3000K, NO LENS
DOWNLIGHT LLO-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

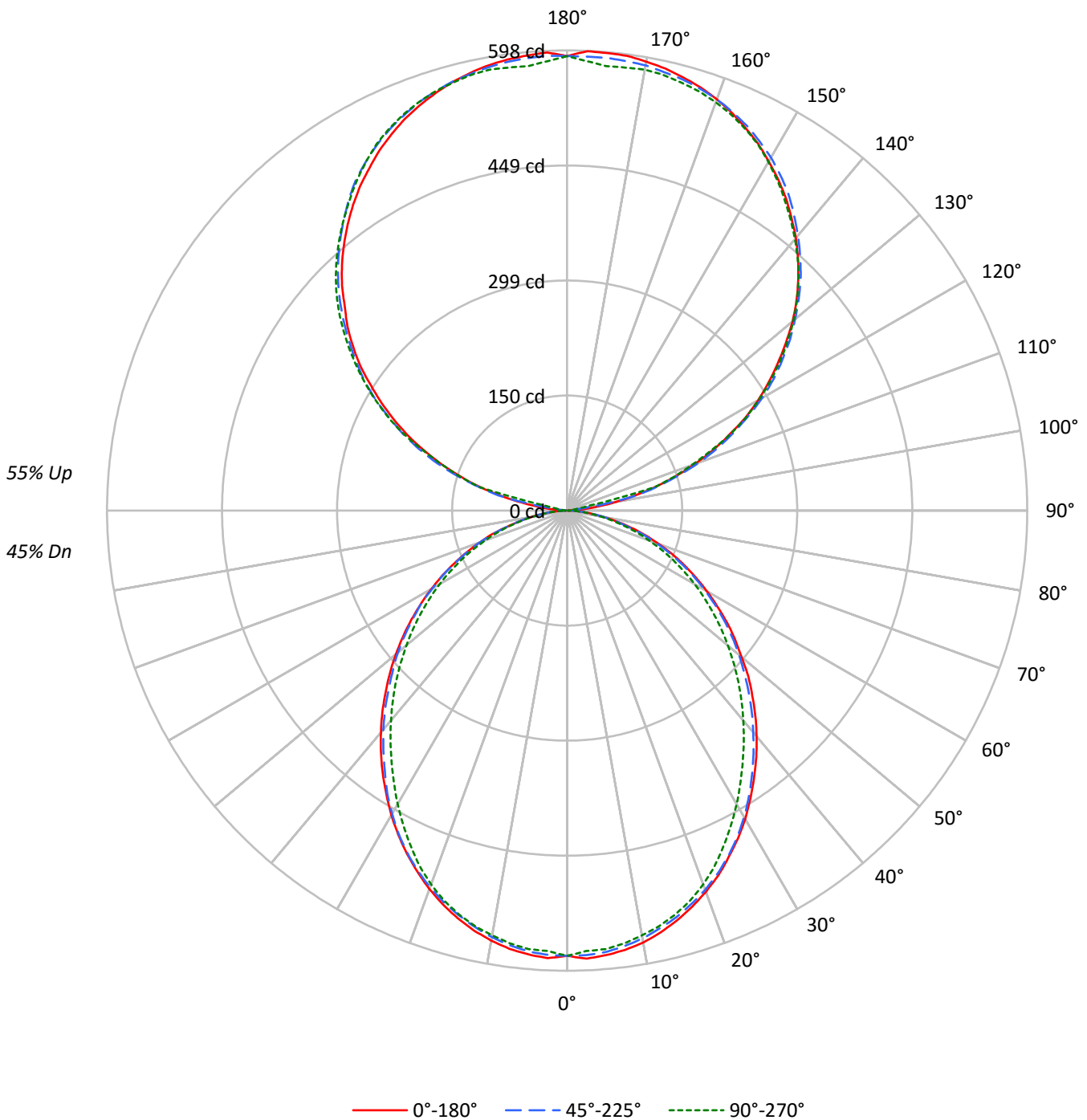
Lumens per Lamp: N/A
Luminaire Lumens: 3205.1 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 26.9
Input Voltage (V): NR
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	97	92	89	85	88	85	82	79	71	68	66	58	56	54	45	44	43	38
2	88	81	75	70	80	74	69	65	62	58	55	51	48	46	40	38	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	36	33	31	27
4	74	63	55	49	67	58	51	46	49	43	39	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	39	43	38	34	36	32	29	29	26	24	20
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	26	23	21	18
7	57	45	37	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	45	35	28	24	30	24	21	25	21	18	20	17	15	13
10	46	34	27	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4576	4576	4576
5°	4568	4134	4560
10°	4504	3755	4484
15°	4406	3418	4384
20°	4293	3088	4262
25°	4157	2753	4118
30°	4013	2439	3962
35°	3843	2148	3789
40°	3672	1891	3608
45°	3487	1655	3418
50°	3278	1432	3220
55°	3091	1225	3011
60°	2860	1027	2778
65°	2631	832	2526
70°	2337	640	2229
75°	1966	450	1823
80°	1476	274	1383
85°	868	121	819



TEST NUMBER: P199514

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	1.7
10°-20°	153.6	4.8
20°-30°	225.0	7.0
30°-40°	257.9	8.0
40°-50°	254.2	7.9
50°-60°	219.1	6.8
60°-70°	159.8	5.0
70°-80°	87.1	2.7
80°-90°	22.8	0.7
90°-100°	15.1	0.5
100°-110°	119.4	3.7
110°-120°	231.0	7.2
120°-130°	300.4	9.4
130°-140°	326.1	10.2
140°-150°	308.5	9.6
150°-160°	251.7	7.9
160°-170°	162.9	5.1
170°-180°	56.1	1.7
0°-30°	433.1	13.5
0°-40°	690.9	21.6
0°-60°	1164.3	36.3
0°-90°	1434.0	44.7
90°-120°	365.4	11.4
90°-150°	1300.4	40.6
90°-180°	1771.0	55.3
0°-180°	3205.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	579	579	579	579	579	
5°	580	576	572	575	579	55
15°	551	547	543	544	549	155
25°	497	495	481	491	492	229
35°	424	419	398	413	418	265
45°	340	333	314	328	334	263
55°	254	249	232	244	247	226
65°	168	164	152	160	162	166
75°	86	83	77	80	80	92
85°	20	20	18	19	18	22
90°	1	1	1	1	1	2
95°	21	5	6	6	18	26
105°	119	122	117	119	115	126
115°	232	238	233	235	226	230
125°	334	341	337	334	328	299
135°	425	429	425	421	414	327
145°	496	502	493	494	485	310
155°	549	552	548	546	540	253
165°	583	580	576	577	576	165
175°	597	590	580	590	594	57
180°	590	590	590	590	590	



TEST NUMBER: P199514

CATALOG NUMBER: S124-DIW-ULO-LO-30-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	578.6	578.6	578.6	578.6	578.6	578.6	578.6	578.6	578.6
2.5°	582.8	576.2	578.3	576.9	573.0	576.9	577.9	575.8	582.1
5°	580.0	573.7	575.8	573.7	572.0	573.4	575.1	572.7	579.0
7.5°	575.8	569.2	570.9	569.2	567.4	568.8	569.9	567.8	574.4
10°	569.9	562.9	564.6	562.5	560.4	561.8	562.9	560.8	567.4
12.5°	561.5	554.9	556.2	554.9	553.1	553.5	554.2	552.1	559.0
15°	551.4	544.7	547.2	545.8	543.3	544.7	544.4	541.9	548.6
17.5°	539.8	533.5	536.3	534.9	531.4	533.5	533.5	529.7	536.7
20°	527.2	520.6	524.4	520.9	517.1	519.2	520.9	516.4	523.4
22.5°	513.2	506.2	510.8	504.5	500.3	502.7	506.9	502.0	508.3
25°	496.8	491.2	495.4	486.6	481.0	484.5	491.2	486.3	492.2
27.5°	480.7	475.1	478.6	468.8	461.1	465.6	474.0	469.8	475.1
30°	462.8	458.3	460.0	448.5	440.5	445.3	455.1	452.7	456.9
32.5°	443.3	439.8	439.8	427.5	419.1	424.7	435.2	434.5	437.3
35°	423.7	421.6	419.1	405.8	397.8	403.0	413.2	416.0	417.7
37.5°	403.7	402.3	397.8	384.8	377.1	382.7	392.2	396.4	397.4
40°	383.1	382.4	376.1	363.8	356.1	361.7	371.5	376.8	376.4
42.5°	362.1	362.8	355.1	343.2	335.5	341.1	350.2	357.2	355.4
45°	340.4	342.5	333.4	322.6	314.5	320.5	327.8	336.5	333.7
47.5°	319.4	321.9	312.4	301.2	293.5	299.8	307.2	316.6	312.4
50°	295.6	300.5	291.4	280.2	272.5	278.5	287.2	295.3	290.4
52.5°	275.0	278.5	270.4	259.6	252.2	257.1	265.9	273.9	268.7
55°	253.6	257.5	249.4	238.6	231.6	236.5	244.2	252.2	247.0
57.5°	231.2	235.1	227.7	218.0	211.3	216.6	224.6	230.2	225.3
60°	209.6	214.5	206.4	197.0	191.4	195.6	201.9	208.5	203.6
62.5°	188.6	193.1	185.4	176.7	171.4	175.3	181.9	187.2	182.6
65°	168.3	171.1	164.4	156.4	151.8	154.3	160.2	166.2	161.6
67.5°	147.6	150.4	143.8	136.8	132.2	134.7	139.6	145.2	141.0
70°	126.6	129.1	123.5	117.2	113.3	115.8	120.3	124.5	120.7
72.5°	106.7	108.5	103.2	98.3	95.5	97.3	100.4	104.3	102.5
75°	86.4	88.5	83.3	79.1	76.6	77.3	79.8	82.9	80.1
77.5°	67.2	69.3	65.1	61.9	60.5	60.9	62.6	65.1	61.6
80°	49.3	51.1	48.6	45.8	44.4	45.1	46.2	47.6	46.2
82.5°	33.2	35.0	33.2	31.5	30.4	31.1	31.5	32.2	31.1
85°	19.6	21.0	19.9	18.9	18.5	18.5	18.9	19.6	18.5
87.5°	8.7	9.8	9.1	8.4	7.3	7.7	8.0	8.7	8.0
90°	0.7	1.7	1.4	1.0	1.0	1.0	1.4	1.7	0.7
92.5°	6.6	3.5	3.5	3.5	3.5	3.5	3.5	3.8	4.5
95°	20.6	13.3	5.2	5.6	5.6	5.6	5.6	9.1	18.5
97.5°	40.2	46.9	10.1	6.6	6.6	6.6	10.1	44.4	37.4
100°	63.7	70.0	51.1	16.1	11.9	15.0	44.8	66.1	60.5
102.5°	89.9	98.0	94.1	52.8	30.4	45.1	91.3	93.8	87.5
105°	118.9	125.9	122.1	123.8	117.2	119.3	119.3	120.7	115.4
107.5°	147.6	153.6	151.5	150.1	144.8	146.2	149.7	149.0	143.1
110°	176.3	182.3	182.3	177.7	171.4	173.9	179.5	176.0	171.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	205.0	209.6	210.6	208.2	200.8	204.3	207.5	201.9	198.7
115°	231.9	238.6	237.9	238.2	233.0	233.0	234.7	230.5	226.0
117.5°	261.0	265.9	264.8	265.2	261.7	260.3	259.9	257.1	252.2
120°	286.5	292.1	292.8	290.4	287.9	285.1	286.9	283.0	277.8
122.5°	310.7	317.0	318.0	315.6	313.1	310.0	311.4	307.2	302.3
125°	334.4	341.4	341.4	339.7	337.2	334.1	333.7	330.3	328.5
127.5°	358.2	366.3	364.9	363.1	361.0	357.5	355.8	353.7	350.9
130°	382.4	388.0	386.6	385.2	383.8	379.6	378.2	376.1	372.9
132.5°	404.4	407.6	408.3	405.5	405.5	400.2	399.9	397.4	391.8
135°	424.7	427.9	429.3	425.1	425.1	419.8	420.9	417.4	413.9
137.5°	444.0	446.4	448.1	443.3	443.6	438.7	440.5	434.5	433.1
140°	462.5	463.5	466.7	461.4	460.7	456.5	459.0	453.0	451.3
142.5°	478.9	480.3	484.2	478.6	476.8	473.7	476.8	469.5	468.4
145°	495.7	496.1	501.7	495.0	492.9	490.5	494.3	485.6	484.9
147.5°	510.4	509.7	516.4	510.8	508.7	506.2	510.4	500.3	500.3
150°	524.1	523.4	529.7	525.1	523.0	520.9	523.4	513.9	513.9
152.5°	537.4	534.9	541.2	537.4	536.7	533.5	535.6	526.5	527.9
155°	548.6	546.1	552.1	548.9	547.5	545.1	546.5	537.7	539.8
157.5°	559.4	555.5	560.8	559.4	556.9	555.5	555.5	548.6	551.0
160°	568.8	564.3	568.8	566.7	564.6	562.9	564.3	557.3	560.4
162.5°	576.5	572.3	574.8	572.0	570.9	568.1	570.9	565.3	568.8
165°	582.8	578.3	580.0	576.2	575.5	573.4	576.9	573.0	576.5
167.5°	588.4	584.2	583.5	579.7	579.7	576.9	581.1	579.0	582.5
170°	592.3	588.8	587.4	581.8	581.8	579.3	585.3	583.5	587.7
172.5°	596.1	591.6	589.1	583.2	580.7	581.1	588.4	587.0	591.2
175°	596.8	593.3	590.5	584.2	579.7	582.8	590.2	590.5	593.7
177.5°	597.5	594.0	590.5	585.3	584.6	583.9	591.6	591.2	595.8
180°	590.5	590.5	590.5	590.5	590.5	590.5	590.5	590.5	590.5

(END OF REPORT)